Converging Flow Between Two Flat Disks

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ABSTRACT

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A numerical solution to the radial non-swirling inflow between two flat disks is presented. The radial pressure distribution and the radial velocity variation are shown to be functions solely of a one non-dimensional parameter that combines the Reynolds number and the radial distance. A comparison of several previous theories for the static pressure distribution in terms of the new non-dimensional variables is presented. The numerically predicted pressure correlates well with the experiment. In comparison with the results of the linearized theory, the radial velocity profile is seen to be lower at the mid-channel larger near the disk surface. An Analytic solution to the problem for inertia dominated flows is obtained, and the radial velocity variation agreed very well with the numerical results for inertia dominated flows.

[1] A paper using the salient points of the present work was accepted for publication in Acta Mechanica.

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NOMENCLATURE

Latin Symbols

$\bar{r}, \bar{\theta}, \bar{z}$	cylindrical coordinates
r	dimensionless radial coordinate
$\bar{t}$	time
$\bar{V}_r, \bar{V}_\theta, \bar{V}_z$	flow velocity in radial, azimuth and axial axes
$\bar{V}_\infty$	radial flow velocity at the inlet
V_r	dimensionless radial flow velocity
$\bar{g}_r, \bar{g}_\theta, \bar{g}_z$	gravity effects in the radial, azimuth and axial axes
$\bar{P}$	static pressure
$\bar{P}_\infty$	pressure at the inlet
$\Delta\bar{P}(\bar{r})$	pressure gradient in the radial direction
$\Delta P(r)$	dimensionless radial pressure gradient
$\bar{Q}$	volumetric flow rate
$\bar{h}$	half of the disks spacing
$\bar{R}$	disk radius
Re	Reynolds number

Re_l	local Reynolds number
Re_r	reduced Reynolds number
f	integral continuity function
j	grid counter in the axial direction
n	total number of grid points in the axial direction
C_f	local friction coefficient at the disk surface

Greek Symbols

∇^2	Laplacian operator
$\bar{\rho}$	density of the fluid
$\bar{\nu}$	kinametic viscosity of the fluid
ξ	dimensionless axial coordinate
κ	half of the aspect ratio
$\Phi(\xi)$	velocity variation in the radial direction
Φ_o	maximum velocity at the mid-channel
$\Delta\Pi$	radial pressure distribution
λ	dimensionless parameter combines r and Re_r
η	normalized radial velocity variation
$\bar{\tau},\tau$	shear stress in dimensional and dimensionless forms
σ_f	normalized local friction coefficient

CHAPTER I

INTRODUCTION

Radial flows between parallel circular disks are of interest in a number of physical systems, such as radial diffusers, non-rotating air-bearings, flow regulating valves, VTOL aircraft with centrally located downward-positioned jets, disk-type heat exchangers, pneumatic micrometers, and several other engineering applications[1-3].

Two basic non-swirling types of flow can be produced inside the gab between the disks. The source flow is developed by supplying the fluid through a centrally located inlet port and discharging it through the periphery, and the sink flow is generated by admitting the flow radially through the circumference of the disks and draining it through a centrally located outlet. For the source flow, the streamlines diverge and the gradual decrease of the local Reynolds number ($Re_\lambda = \overline{Q} / \overline{\nu}\,\overline{r}$) based on the gap height leads to the interesting phenomenon of relaminarization. For the sink flow, the streamlines converge, resulting in a drastic pressure drop similar to that produced in a converging nozzle.

The present work focuses on the converging flow at speeds sufficiently low for the flow to be effectively incompressible. Due to the stabilizing effects of acceleration, this kind of flow is characterized by its persistence to remain laminar, even for very high Reynolds numbers, or to laminarize in case that the entering fluid is initially turbulent[4].

1.1. The General Problem

The diverging flow between confined boundaries, such as narrowly spaced disks at sufficiently low Reynolds number, exhibits the familiar Poisseuille profile. There may be a drop in pressure in the radial direction due to the dominance of the viscous effects. As the flow rate increases, the Reynolds number at the inlet increases and may exceed a critical value, so that turbulent flow will exist at some distance from the inlet. When the velocity, which decreases as the radius increases, has fallen sufficiently for the local Reynolds number to become sub-critical, a reveres transition from turbulent to laminar flow results.

The problem under consideration has two limiting cases, the first is when inertia dominates the flow, and occurs when the flow rate is very large; that is, the local Reynolds number is much larger than unity. The other extreme case is the creeping flow in which the flow rate is very small; that is, the local Reynolds number is less than unity. The former is similar to the inviscid flow solution,

where the inertia effects dominate, while the latter can be regarded as the cylindrical equivalent to Poiseuille's flow between flat plates.

In most practical applications, the local Reynolds number lies between the above mentioned limits, the flow acceleration is present, and the inertia effects may be significant. For the problem under consideration, the streamlines convergence makes the assumption of negligible inertia effects, reasonable only in restricted regions where the Reynolds number is extremely small.

1.2. Literature Survey

Several papers in the past have dealt with the theoretical and experimental perspective of the problem. In fact, due to the narrow space between the disks, it is difficult to verify the velocity profiles experimentally, whether they are assumed or derived. Hence, the experimental pressure distribution data are still the final criteria used to judge the validity of a solution. Indeed, these disk-type devices have many engineering applications in which the pressure distribution is the major design concerns.

Earlier studies investigated the two limiting cases of the flow. Licht and Fuller[5] studied the creeping flow by neglected the inertia effects. They concluded that the velocity profile is parabolic, as in parallel duct flow, and the

fluid pressure decreases in the radial direction as the inertia effects become negligible in comparison to the viscous effects. Woolard[6] studied the inertia dominated flow and concluded that since the viscous effects become negligible, the Bernoulli equation yields an increase in the fluid pressure in the radial direction.

In the study of the subject flow, several workers concentrated on solutions to the problem in which neither the acceleration nor the viscosity effects can be completely ignored. Livesey[7] employed the Von Karman momentum integral technique, as first suggested by Von Karman in his momentum equation approach to the boundary layer theory, recognizing that an integral solution is intended to satisfy the mean characteristics over the whole thickness of a boundary layer. He generated a parabolic velocity profile invariant with the radius, and solved the equation of motion, approximately, in its integral form. He concluded that the effects of inertia are significant, and can not be neglected even at viscous dominated flows. Morgan and Saunders[8] conducted several experiments, and stressed the importance of inertia term in the equation of motion for the subject flow.

Moller[9] carried out an extensive experimental and theoretical study on a diverging flow to find out the pressure distribution along the radius for both

laminar and turbulent flows, using the momentum integral technique. He concluded that the critical Reynolds number, based on the mean velocity and the hydraulic diameter, is 2000 for reverse transition from turbulent to laminar flow. His theoretical and experimental results corresponded. Livesey's radial pressure result was found to fall above the experimental data of Moller, due to the assumption of a parabolic velocity profile that leads to a higher wall shear stress than which occurs when the inertia effects become important.

However, the assumption of a fixed velocity profile leads to an inconsistency that can be of significant consequence. Nonetheless, it was found that the velocity profiles were not radically invariant, but that for converging flow, parabolic for viscous dominated flows, as Reynolds number increases, the acceleration effects tend to flatten the velocity profile in the direction where the flow accelerates, increasing the wall shear stress.

Savage[10] obtained approximate solution to the problem by perturbing the creeping flow solution and carrying out an expansion in terms of the coordinate where the flow accelerates. His radial pressure result agreed reasonably well with the experimental data of Moller, except near the channel entrance. Since his power series was truncated after only two contributions to the exact solution, the

first of which consisted of the creeping flow solution, its accuracy was dependent on the Reynolds number and the radius at which it was applied.

Boyak and Rice[11] have proposed a higher order approximation in which the velocity profile at any radius was represented by four terms, two more than Savage considered. The approach was by integral momentum method. They found that the pressure gradient predicted by Savage began to differ from theirs when the ratio of inertia to viscous effects approached one. Since they consider more terms, their analysis extended the range of validity to higher accelerations. Nonetheless, since this power series method is essentially a perturbation of the creeping flow solution with additional terms dependent upon negative powers of the radius, its accuracy eventually degrades at small radius.

Ishizawa[12,13] proposed a more accurate approximation, using both the power series expansion approach for the inlet region, and the momentum integral method for the remainder of the flow domain. However, his conclusions were later questioned by Wilson[14], due to the nature of linearization, and Raal[15] due to the convergence problems of series solution.

Kwok and Lee[16] directly assumed a velocity profile satisfies both the boundary conditions and continuity requirement, and solved the problem using the

integral technique. The resulting pressure distribution was found to be identical to Savage's expression.

Hayes and Tucker[17] conducted an extensive experimental study for the flow under consideration, and the experimental results were presented as dimensional quantities. Details of the experimental conditions and the data in non-dimensional form are given by Lee and Lin[18], who attempted a differential solution to directly obtained the radial pressure distribution without having to derive or assume any velocity profile, by simplifying the connective terms and linearizing the equation of motion. Their method of treatment led them to an expression for the pressure that cannot be solved analytically. Nonetheless, their numerical results have shown a good agreement with the experimental data of Hayes and Tucker.

Vatistas[19] was convinced that only a numerical solution to the linearized momentum equation of Lee and Lin was possible, so he further simplified the inertia terms, and with additional simplifications, he was able to solve the linearized equation of motion analytically and obtain simple expressions for the radial pressure distribution; his result agreed closely with Lee and Lin's numerical results and the experimental data of Hayes and Tucker. However, the radial velocity presented applied only in the low Reynolds number regime.

Later, Vatistas[20] was able to solve analytically the linearized equation of Lee and Lin; he presented close-form solutions for both the pressure and velocity function in the radial direction. The radial velocity function did differ sufficiently from his previous result[19], and the pressure distributions showed close agreement with the experimental data of Hayes and Tucker, since the experiments were in the low Reynolds number range.

In summary, the studies of the problem presented in the references discussed above are approximated ones. Some results from assuming velocity profile in order to get the pressure distribution, and others from simplifying the connective term in the equation of motion. An exact solution to the non-linear equation of motion for the situation when both inertia and viscous effects are important has not been presented, although the problem, particularly in its geometry, appears to be of fundamental simplicity, and various aspects have been under investigation for over 30 years.

1.3. The Contribution

A numerical solution to the non-linear equation of motion for the radial flow between two flat disks is presented using central finite differences method, with the goal of providing more accurate characterizations for the radial distribution of the static pressure and the axial variation of the radial velocity, as a

function of dimensionless parameter λ that combines the Reynolds number and radial distance. An approximate solution for the inertia dominated flow when Reynolds number becomes sufficiently high is obtained and compared with the numerical results.

CHAPTER II

ANALYSIS

The problem, illustrated schematically in Figure 1, consists of two stationary, parallel, circular disks with radius $\overline{R}$ separated by distance $2\overline{h}$, with the origin for the axial direction located at the mid-channel between the disks, and for radial direction located at the center of outlet port. The flow is admitted radially through the circumference of the disks with mean velocity $\overline{V}_\infty$ at static pressure $\overline{P}_\infty$, and draining it through a centrally located outlet with radius $\overline{R}_0$.

Consider a steady, incompressible, laminar, non-swirling sink flow of a viscous Newtonian fluid between the two disks. Due to non-swirling, The flow has no velocity component in the azimuth direction. The disks are narrowly spaced, as a result of a low aspect ratio, defined as $(2\overline{h} / \overline{R})$; the axial velocity component is comparatively insignificant by comparison to the radial component $(\overline{V}_z = 0)$. Thus, the flow is assumed to be purely radial.

The flow is further assumed to be symmetric about the $\bar{z} = 0$ plane. Due to this symmetry, we shall deal only with the flow between the planes $\bar{z} = 0$, the mid-channel between the disks, and $\bar{z} = +\bar{h}$, the inside face of the top disk.

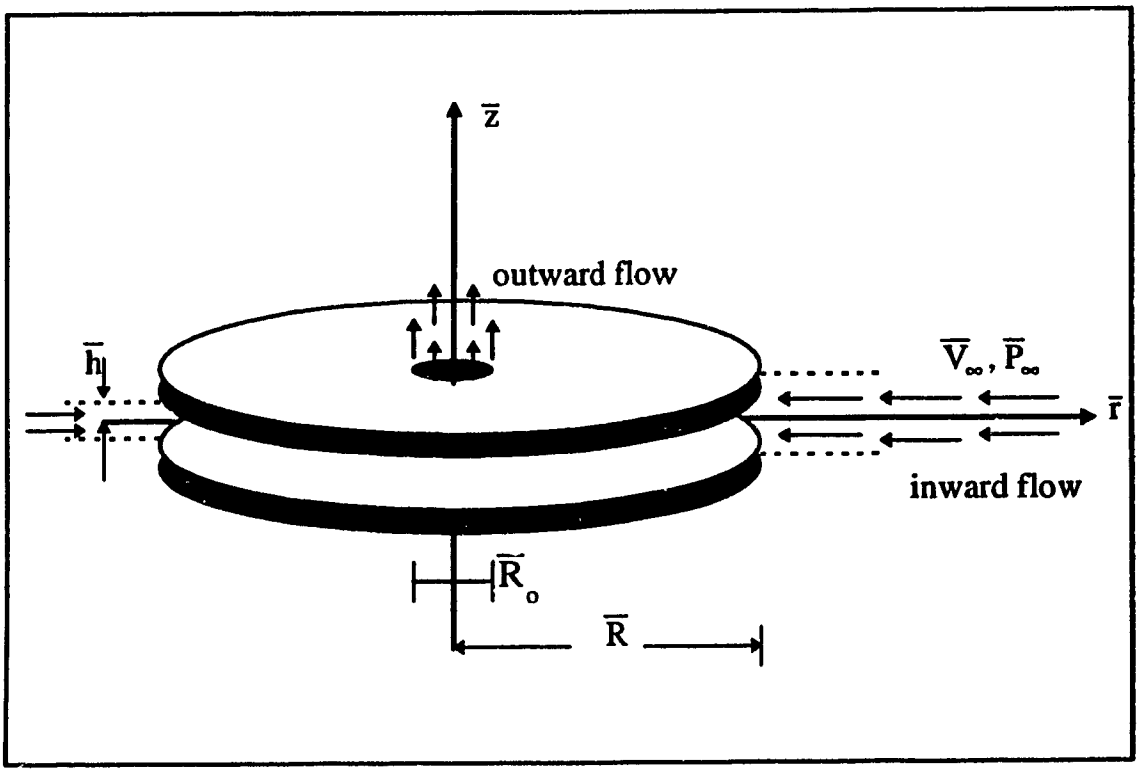

Figure 1. The problem geometry and the coordinate system in dimensional form.

2.1. Governing Equations

The governing equations, the Navies-Stokes equations for constant density and viscosity, consist of the continuity and momentum equations of motion written in cylindrical coordinate[21]. These are:

continuity equation

$$\frac{1}{\bar{r}}\frac{\partial}{\partial \bar{r}}(\bar{V}_r\,\bar{r}) + \frac{1}{\bar{r}}\frac{\partial \bar{V}_\theta}{\partial \bar{\theta}} + \frac{\partial \bar{V}_z}{\partial \bar{z}} = 0 \qquad (2.1)$$

$\bar{r}$ ***-momentum equation***

$$\frac{\partial \bar{V}_r}{\partial \bar{t}} + \bar{V}_r\frac{\partial \bar{V}_r}{\partial \bar{r}} + \frac{\bar{V}_\theta}{\bar{r}}\frac{\partial \bar{V}_r}{\partial \bar{\theta}} + \bar{V}_z\frac{\partial \bar{V}_r}{\partial \bar{z}} - \frac{\bar{V}_\theta^{\,2}}{\bar{r}} = -\frac{1}{\bar{\rho}}\frac{\partial \bar{P}}{\partial \bar{r}}$$

$$+ \bar{g}_r + \bar{\nu}\left\{\nabla^2\bar{V}_r - \frac{\bar{V}_r}{\bar{r}^{\,2}} - \frac{2}{\bar{r}^{\,2}}\frac{\partial \bar{V}_\theta}{\partial \bar{\theta}}\right\} \qquad (2.2a)$$

$\bar{\theta}$ ***-momentum equation***

$$\frac{\partial \bar{V}_\theta}{\partial \bar{t}} + \bar{V}_r\frac{\partial \bar{V}_\theta}{\partial \bar{r}} + \frac{\bar{V}_\theta}{\bar{r}}\frac{\partial \bar{V}_\theta}{\partial \bar{\theta}} + \bar{V}_z\frac{\partial \bar{V}_\theta}{\partial \bar{z}} - \frac{\bar{V}_\theta\,\bar{V}_r}{\bar{r}} = -\frac{1}{\bar{\rho}\bar{r}}\frac{\partial \bar{P}}{\partial \bar{\theta}}$$

$$+ \bar{g}_\theta + \bar{\nu}\left\{\nabla^2\bar{V}_\theta + \frac{2}{\bar{r}^{\,2}}\frac{\partial \bar{V}_\theta}{\partial \bar{\theta}} - \frac{\bar{V}_\theta}{\bar{r}^{\,2}}\right\} \qquad (2.2b)$$

$\bar{z}$ ***-momentum equation***

$$\frac{\partial \bar{V}_z}{\partial \bar{t}} + \bar{V}_r\frac{\partial \bar{V}_z}{\partial \bar{r}} + \frac{\bar{V}_\theta}{\bar{r}}\frac{\partial \bar{V}_z}{\partial \bar{\theta}} + \bar{V}_z\frac{\partial \bar{V}_z}{\partial \bar{z}} = -\frac{1}{\bar{\rho}}\frac{\partial \bar{P}}{\partial \bar{z}} + \bar{g}_z + \bar{\nu}\,[\nabla^2\,\bar{V}_z] \qquad (2.2c)$$

where ∇^2 is the Laplacian operator, defined as:

$$\nabla^2 = \frac{1}{\bar{r}}\frac{\partial}{\partial \bar{r}}\left(\bar{r}\frac{\partial}{\partial \bar{r}}\right) + \frac{1}{\bar{r}^2}\frac{\partial^2}{\partial \bar{\theta}^2} + \frac{\partial^2}{\partial \bar{z}^2}$$

2.1.1. Boundary Conditions

The following boundary conditions are to be satisfied by continuity equation(2.1) and momentum equations given by equation(2.2):

1. No-slip condition at the disk surface.

$$\overline{V}_r(\bar{r},\bar{h}) = 0 \tag{2.4}$$

2. Velocity symmetry requirement at the mid-channel.

$$\frac{\partial \overline{V}_r}{\partial \bar{z}}(\bar{r},0) = 0 \tag{2.3}$$

Furthermore, there are the inlet boundary conditions of the radial velocity and static pressure of the flow at the inlet.

$$\overline{V}_r(\overline{R},\bar{z}) = \overline{V}_\infty \tag{2.5a}$$

$$\overline{P}(\overline{R},\bar{z}) = \overline{P}_\infty \tag{2.5b}$$

2.1.2. The Assumptions

The following assumptions apply to the problem:

1. Steady flow.
2. The flow remain laminar (constant $\overline{\nu}$).
3. Incompressible flow (constant $\overline{\rho}$).
4. Negligible gravitational effects ($\overline{g}_r = \overline{g}_\theta = \overline{g}_z = 0$).
5. Purely radial flow ($\overline{V}_\theta = \overline{V}_z = 0$).
6. Axisymmetric flow.

Using the above stated assumptions, the continuity equation and the momentum equations can be simplified and written respectively as:

$$\frac{1}{\bar{r}}\frac{\partial}{\partial \bar{r}}(\bar{V}_r\,\bar{r}) = 0 \tag{2.6}$$

$$\bar{V}_r\frac{\partial \bar{V}_r}{\partial \bar{r}} = -\frac{1}{\bar{\rho}}\frac{\partial \bar{P}}{\partial \bar{r}} + \bar{\nu}\left\{\frac{1}{\bar{r}}\frac{\partial}{\partial \bar{r}}\left(\frac{\partial \bar{V}_r}{\partial \bar{r}}\right) + \frac{\partial^2 \bar{V}_r}{\partial \bar{z}^2} - \frac{\bar{V}_r}{\bar{r}^2}\right\} \tag{2.7a}$$

$$\frac{\partial \bar{P}}{\partial \bar{\theta}} = 0 \tag{2.7b}$$

$$\frac{\partial \bar{P}}{\partial \bar{z}} = 0 \tag{2.7c}$$

The momentum equations(2.7b,c) for the azimuth and axial directions indicate that the pressure is a constant along these directions. Hence, the pressure is varying only in the radial direction.

$$\bar{P} = \Delta\bar{P}(\bar{r}) \tag{2.8}$$

Substituting equation(2.8) into equation(2.7a), the momentum equation in the radial direction can be written as:

$$\bar{V}_r\frac{\partial \bar{V}_r}{\partial \bar{r}} = -\frac{1}{\bar{\rho}}\frac{d\Delta\bar{P}(\bar{r})}{d\bar{r}} + \bar{\nu}\left\{\frac{1}{\bar{r}}\frac{\partial}{\partial \bar{r}}\left(\frac{\partial \bar{V}_r}{\partial \bar{r}}\right) + \frac{\partial^2 \bar{V}_r}{\partial \bar{z}^2} - \frac{\bar{V}_r}{\bar{r}^2}\right\}$$

This equation can be written, after several manipulations, as:

$$\bar{V}_r \frac{\partial \bar{V}_r}{\partial \bar{r}} = -\frac{1}{\bar{\rho}} \frac{d\Delta\bar{P}(\bar{r})}{d\bar{r}} + \bar{\nu} \frac{\partial^2 \bar{V}_r}{\partial \bar{z}^2} + \bar{\nu} \frac{\partial}{\partial \bar{r}} \left\{ \frac{1}{\bar{r}} \frac{\partial}{\partial \bar{r}} (\bar{V}_r \bar{r}) \right\}$$

The last term of the above equation vanishes due to continuity equation(2.6), and the momentum equation in the radial direction is simplified to:

$$\bar{V}_r \frac{\partial \bar{V}_r}{\partial \bar{r}} = -\frac{1}{\bar{\rho}} \frac{d\Delta\bar{P}(\bar{r})}{d\bar{r}} + \bar{\nu} \frac{\partial^2 \bar{V}_r}{\partial \bar{z}^2} \qquad (2.9)$$

2.1.3. Non-dimensionalization

In order to transform the remaining governing equations into dimensionless forms , we introduce the following dimensionless parameters:

$$r = \frac{\bar{r}}{\bar{R}} \qquad \xi = \frac{\bar{z}}{\bar{h}}$$

$$V_r = \frac{\bar{V}_r}{\bar{V}_\infty} \qquad \kappa = \frac{\bar{h}}{\bar{R}}$$

$$Re = \frac{\bar{V}_\infty \bar{h}}{\bar{\nu}} \qquad Re_r = Re \cdot \kappa$$

$$\Delta P(r) = \frac{\Delta\bar{P}(\bar{r})}{\bar{\rho}\bar{V}_\infty^2} = \frac{\bar{P} - \bar{P}_\infty}{\bar{\rho}\bar{V}_\infty^2}$$

where:

r, ξ : non-dimensional radial and axial coordinates.

$\bar{P}, \bar{V}_r$: the local dimensionless flow pressure and radial velocity.

$\overline{\rho}, \overline{\nu}$: density and kinematic viscosity of the fluid.

$\Delta P(r), V_r$: radial pressure gradient and velocity of the flow.

κ : half of the aspect ratio.

Re, Re_r : the local and reduced Reynolds numbers.

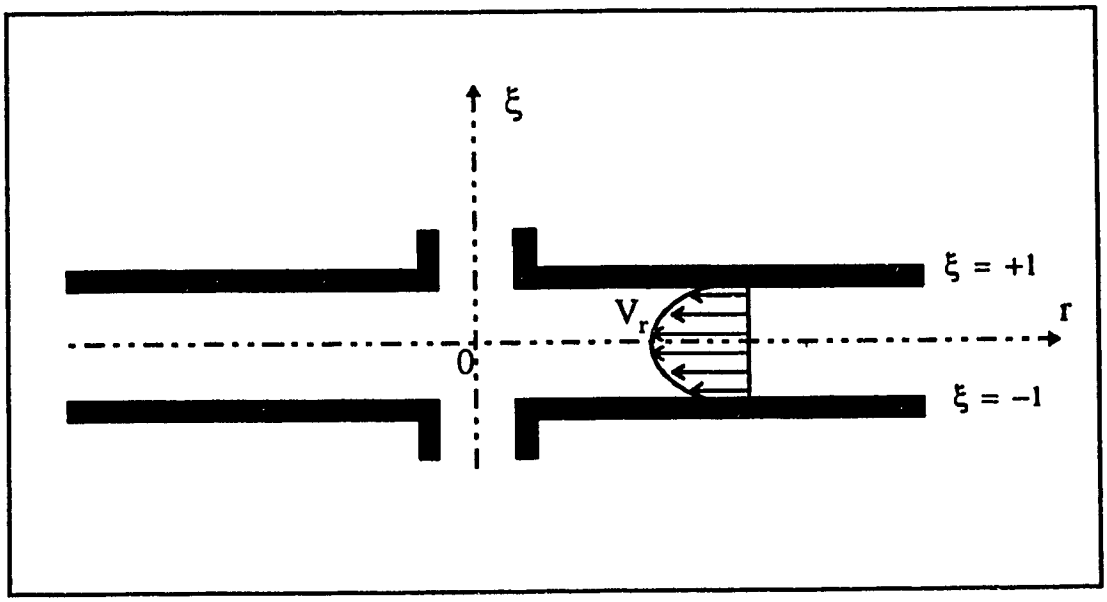

Figure 2. The problem geometry and the coordinate system in non-dimensional form.

The problem geometry and coordinate system in dimensionless form are shown in Figure 2. The dimensional variables are identified with bar, while dimensionless variables have none. The continuity and momentum equations can be written respectively in dimensionless form as:

Continuity equation:

$$\frac{1}{r}\frac{\partial}{\partial r}(V_r\, r) = 0 \tag{2.10}$$

Momentum equation:

$$V_r \frac{\partial V_r}{\partial r} = -\frac{d\Delta P(r)}{dr} + \frac{1}{Re_r}\frac{\partial^2 V_r}{\partial \xi^2} \tag{2.11}$$

Integrating equation(2.10) with respect to the radius, the continuity equation can be written as:

$$V_r\ r = \Phi(\xi) \tag{2.12}$$

Where Φ is an arbitrary function of ξ, the dimensionless axial distance which varies from ($\xi = 0$) at the mid-channel, to ($\xi = 1$) at the disk surface. Inserting continuity equation(2.12) into equation(2.11), gives:

$$\frac{\Phi(\xi)}{r}\frac{d}{dr}\left\{\frac{\Phi(\xi)}{r}\right\} = -\frac{d\Delta P(r)}{dr} + \frac{1}{Re_r}\frac{d^2}{d\xi^2}\left\{\frac{\Phi(\xi)}{r}\right\}$$

or

$$-\frac{\Phi^2(\xi)}{r^3} = -\frac{d\Delta P(r)}{dr} + \frac{1}{r \cdot Re_r}\frac{d^2\Phi(\xi)}{d\xi^2}$$

Integration of the last equation once with respect to the radial distance from the inlet ($r = 1$) to any radius:

$$-\Phi^2(\xi)\int_1^r \frac{dr}{r^3} = -\int_1^r \frac{d\Delta P(r)}{dr} + \frac{1}{Re_r}\frac{d^2\Phi(\xi)}{d\xi^2}\int_1^r \frac{dr}{r}$$

Evaluation of the integrals gives:

$$\frac{\Phi^2}{2}\left(\frac{1}{r^2} - 1\right) = -[\Delta P(r) - \Delta P(r=1)] + \frac{1}{Re_r}\frac{d^2\Phi}{d\xi^2}[\ln(r) - \ln(1)]$$

Since $P = P_\infty$ at the inlet, then $\Delta P(r) = 0$ and the above equation simplified to:

$$\frac{(1 - r^2)\Phi^2}{2r^2} = -\Delta P(r) + \frac{\ln(r)}{Re_r}\frac{d^2\Phi}{d\xi^2}$$

The above equation of motion is simplified to

$$\frac{d^2\Phi(\xi)}{d\xi^2} + \lambda^2\,\Phi^2(\xi) = \lambda^2\,\Delta\Pi \qquad (2.13)$$

where:

$$\lambda^2 = \frac{(r^2 - 1)\,Re_r}{2r^2\ln(r)}$$

and,

$$\Delta\Pi = \frac{2r^2}{(r^2 - 1)}\Delta P(r)$$

Thus, λ is a dimensionless parameter that combines the reduced Reynolds number Re_r and the radial distance r, and $\Delta\Pi$ is the dimensionless radial pressure distribution.

2.1.4. Volumetric Flow Rate

The volumetric flow rate of the fluid between $\bar{z} = 0$ and $\bar{z} = \bar{h}$ at any radius is given by:

$$\bar{Q} = \int_0^{+\bar{h}} \bar{V}_r \, (2 \pi \bar{r}) \, d\bar{z} \tag{2.14}$$

While at the inlet $\bar{r} = \bar{R}$, it is given by:

$$\bar{Q} = - \bar{V}_\infty \, (2 \pi \bar{R}) \, \bar{h}$$

Application of continuity of the flow rate between any radius and the inlet requires that:

$$\int_0^{+\bar{h}} \bar{V}_r \, (2 \pi \bar{r}) \, d\bar{z} = - \bar{V}_\infty \, (2 \pi \bar{R}) \, \bar{h}$$

The above equation can be written as:

$$\int_0^{+\bar{h}} \frac{\bar{V}_r}{\bar{V}_\infty} \, \frac{\bar{r}}{\bar{R}} \, d[\frac{\bar{z}}{\bar{h}}] = -1$$

Using the dimensionless parameters, the above equation can be written in dimensionless form as:

$$\int_0^1 V_r \, r \, d\xi = -1$$

Using equation(2.12) to replace the radial velocity and distance with the radial velocity function, the above equation can be written as:

$$\int_0^1 \Phi(\xi) \, d\xi = -1 \tag{2.15}$$

The problem is now reduced to solving the equation of motion given by equation(2.13) and the integral continuity equation(2.15), and simultaneously to find the radial velocity function $\Phi(\xi)$ and the radial pressure distribution $\Delta\Pi$ as a function of λ , which combined the radial distance r and the reduced Reynolds number Re_r, with the two required boundary conditions:

1. no-slip condition at the disk surface:

$$\Phi\,(\xi = 1) = 0$$

2. symmetry velocity requirement at the mid-channel:

$$\left.\frac{d\Phi}{d\xi}\right|_{\xi=0} = 0$$

2.2. Limits of the Flow

The flow properties at the limits can be determined by solving the momentum equation(2.13) along with the integral continuity equation(2.15) using the two required boundary conditions. Recall the momentum equation which is given by equation(2.13):

$$\Phi''(\xi) + \lambda^2\,\Phi^2(\xi) = \lambda^2\Delta\Pi$$

As λ decreases ($\lambda \rightarrow 0$), the viscous effects dominate the flow, and the inertia terms can be neglected in equation(2.13), then:

$$\Phi''(\xi) = \lambda^2\Delta\Pi \qquad (2.16)$$

Integration of the equation yields:

$$\Phi(\xi) = \frac{\lambda^2 \Delta\Pi}{2} \xi^2 + C_1 \xi + C_2$$

Where C_1 and C_2 are constants, which can be determined using the two boundary conditions:

$$\Phi(\xi) = \frac{\lambda^2 \Delta\Pi}{2}(\xi^2 - 1) \tag{2.17}$$

Using the continuity integral equation(2.15), the pressure limit for viscous dominated flow can be calculated form equation(2.17):

$$\Delta\Pi = \frac{3}{\lambda^2}$$

Substitution the value of the pressure limit into equation(2.17), the velocity function for viscous dominated flow is given by:

$$\Phi(\xi) = \frac{3}{2}(\xi^2 - 1)$$

While as λ increases ($\lambda \to \infty$), the viscous effects becomes sufficiently small by comparison to the inertia effects, and can be ignored in the momentum equation(2.13):

$$\Phi^2(\xi) = \Delta\Pi \tag{2.18}$$

For converging flow, the negative value of the velocity function is applicable:

$$\Phi(\xi) = -\sqrt{\Delta\Pi} \tag{2.19}$$

Using the continuity integral equation(2.15), the pressure limit for the inertia dominated flow is:

$$\Delta\Pi = 1$$

which is the dimensionless Bernoulli equation for frictionless flow

$$\Delta P(r) = \frac{1}{2r^2}[r^2 - 1]$$

Substituting the pressure limit into equation(2.19), the velocity function for inertia dominated flow is given by:

$$\Phi(\xi) = -1$$

In summary, the limiting cases, which are the viscous and inertia dominated extremes conditions of the flow, are summarized below:

$$\lim_{\lambda \to \sigma} \Phi(\xi) = \begin{cases} \frac{3}{2}(\xi^2 - 1) & \text{for} \quad \sigma = 0 \\ -1 & \text{for} \quad \sigma = \infty \end{cases}$$

$$\lim_{\lambda \to \sigma} \Delta\Pi = \begin{cases} \frac{3}{\lambda^2} & \text{for} \quad \sigma = 0 \\ 1 & \text{for} \quad \sigma = \infty \end{cases}$$

2.3. Shear Stress

The shear stress at the disk surface can be calculated by:

$$\bar{\tau} = \bar{\mu} \frac{\partial \bar{V}_r}{\partial \bar{z}} \bigg|_{\bar{z}=+\bar{h}}$$

while, in non-dimensional form, it is given by:

$$\tau = \frac{1}{Re} \frac{\partial V_r}{\partial \xi} \bigg|_{\xi=1}$$

where:

$$\tau = \frac{\bar{\tau}}{\bar{\rho} \bar{V}_\infty^2}$$

The local friction coefficient for the laminar flow between the disks is expressed by $C_f = 2\tau$, then:

$$C_f = \frac{2}{Re} \frac{\partial V_r}{\partial \xi} \bigg|_{\xi=1}$$

The above formula can be written, in terms of reduced Reynolds number, as:

$$C_f = \frac{2\kappa}{r Re_r} \frac{d\Phi}{d\xi} \bigg|_{\xi=1}$$

The normalized local friction coefficient is given by:

$$\sigma_f = \frac{1}{\lambda^2}\frac{d\Phi}{d\xi}\bigg|_{\xi=1} \tag{2.20}$$

where:

$$\sigma_f = \frac{r^3 \ln(r)}{\kappa(r^2 - 1)} C_f$$

CHAPTER III

SOLUTION

A solution to the problem under consideration means solving the non-linear equation of motion given by equation(2.13), along with the integral continuity equation(2.12) and the two required boundary conditions. Multiplying equation(2.13) by $\Phi'(\xi)$ gives:

$$\Phi'(\xi)\,\Phi''(\xi) + \lambda^2\,\Phi'(\xi)\,\Phi^2(\xi) = \lambda^2\,\Delta\Pi\,\Phi'(\xi)$$

which can be written as:

$$[\Phi'^2(\xi)]' + \frac{2\lambda^2}{3}[\Phi^3(\xi)]' = 2\lambda^2\,\Delta\Pi\,\Phi'(\xi)$$

Integration once yields:

$$\Phi'^2(\xi) + \frac{2\lambda^2}{3}\Phi^3(\xi) = 2\lambda^2\,\Delta\Pi\,\Phi(\xi) + \Omega \qquad (3.1)$$

where Ω is the integration constant.

Setting:

$$\eta = \frac{\Phi(\xi)}{\Phi_o}$$

Φ_o is the maximum velocity at the mid-channel, where:

$$\eta(\xi = 0) = 1$$

Upon utilization of the first boundary condition :

$$\eta'(\xi = 0) = 0$$

Equation(3.1) can be written in terms of η as:

$$(\Phi_o \eta')^2 = 2\lambda^2 \Delta\Pi (\Phi_o \eta) - \frac{2\lambda^2}{3} (\Phi_o \eta)^3 + \Omega \qquad (3.2)$$

The constant Ω can be determined by substituting values of η and η' at the mid-channel into equation(3.2):

$$\Omega = \frac{2\lambda^2}{3} \Phi_o^3 - 2\lambda^2 \Delta\Pi \Phi_o$$

Substituting value of the constant Ω into equation(3.2) obtains:

$$(\Phi_o \eta')^2 = 2\lambda^2 \Delta\Pi \Phi_o (\eta - 1) - \frac{2\lambda^2}{3} \Phi_o^3 (\eta^3 - 1) \qquad (3.3)$$

Since:

$$\eta^3 - 1 = (\eta - 1)[\eta^2 + \eta + 1]$$

Equation(3.3) can be written as:

$$\eta'^2 = \gamma^2(\eta - 1) + \beta^2(\eta - 1)[\eta^2 + \eta + 1] \qquad (3.4)$$

where:

$$\gamma = \sqrt{\frac{2\lambda^2 \Delta\Pi}{\Phi_o}}$$

and,

$$\beta = \sqrt{-\frac{2\lambda^2}{3}\Phi_o}$$

Equation(3.4) can be simplified to:

$$\eta'^3 = \beta^2(\eta - 1)[\eta^2 + \eta + (\varepsilon + 1)]$$

where:

$$\varepsilon = [\frac{\gamma}{\beta}]^2 = \frac{-3\,\Delta\Pi}{\Phi_o^{\,2}}$$

Since:

$$\eta^2 + \eta + (\varepsilon + 1) = -\frac{1}{2}[1 \pm \sqrt{1 - 4(\varepsilon + 1)}]$$

Equation(3.4) can be simplified further to:

$$\eta' = \beta\sqrt{(\eta - 1)(\eta - \eta_1)(\eta - \eta_2)} \qquad (3.5)$$

where:

$$\eta_{1,2} = -\frac{1}{2}\left[1 \pm \sqrt{\frac{12\,\Delta\Pi - 3\,\Phi_o^{\,2}}{\Phi_o^{\,2}}}\right] \qquad (3.6)$$

3.1. Analytic Solution For Inertia dominated Flow

As λ increases sufficiently, the velocity profile starts to flatten in the neighborhood of $\xi = 0$. This region, where the velocity profile is almost flat,

tends to propagate towards the solid channel wall as λ increases further. Therefore, one can make the following assumption:

$$\left.\frac{d^2\Phi(\xi)}{d\xi^2}\right|_{\xi=0} \cong 0$$

From the equation of motion given by equation(2.13), The pressure distribution at mid-channel for high λ's is then given by:

$$\Delta\Pi = \Phi_o^2$$

Substituting the above into equation(3.6) obtains:

$$\eta_1 = 1$$

and:

$$\eta_2 = -2$$

Taking into consideration the above, equation(3.5) can be rewritten as:

$$\eta' = \beta\,(\eta - 1)\sqrt{(\eta + 2)} \qquad (3.7)$$

Letting:

$$\Psi^2 = \eta + 2$$

Equation(3.7) transforms to:

$$\frac{d\Psi}{d\xi} = \frac{\beta}{2}(\Psi^2 - 3) \qquad (3.8)$$

Integration of equation(3.8) using the integration formula:

$$\int \frac{dx}{a^2 - x^2} = \frac{1}{a}\tanh^{-1}\left[\frac{x}{a}\right] + \text{const.} \qquad (3.9)$$

yields:

$$-\frac{1}{\sqrt{3}}\tanh^{-1}\left[\frac{\Psi}{\sqrt{3}}\right]=\frac{\beta}{2}\xi+\omega$$

where ω is the integration constant, the above equation can be written as:

$$\Psi=\sqrt{3}\tanh\left[-\frac{\sqrt{3}\beta}{2}\xi+\omega\right]$$

Since $\eta=\Psi^2-2$, the above equation can be transformed in terms of η to:

$$\eta(\xi)=3\tanh^2[-\alpha\xi+\omega]-2 \qquad (3.10)$$

where:

$$\alpha=\sqrt{-\frac{\lambda^2}{2}\Phi_o}$$

Application of the second boundary condition $\eta(\xi=1)=0$ requires that :

$$\omega=\alpha\pm\delta$$

where:

$$\delta=\tanh^{-1}\left[\sqrt{\frac{2}{3}}\right]=1.1462158$$

Therefore, equation(3.10) simplified to:

$$\Phi(\xi)=\Phi_o\{3\tanh^2[\alpha(1-\xi)\pm\delta]-2\} \qquad (3.11)$$

Given λ, Φ_0 can be calculated using the integral continuity equation(2.12):

$$\int_0^1\Phi_o\{3\tanh^2[\alpha(1-\xi)\pm\delta]-2\}d\xi=-1 \qquad (3.12)$$

To evaluate the integral, assume:

$$\varphi = \tanh[\alpha(1 - \xi) \pm \delta] \tag{3.13}$$

then:

$$d\varphi = -\alpha \, \mathrm{sech}^2[\alpha(1 - \xi) \pm \delta] \, d\xi$$

Since, $\tanh^2(x) = 1 - \mathrm{sech}^2(x)$, then:

$$d\varphi = -\alpha\{1 - \tanh^2[\alpha(1 - \xi) \pm \delta]\} \, d\xi \tag{3.14}$$

Using equation(3.13), equation(3.14) can be reduced to:

$$d\xi = -\frac{d\varphi}{\alpha\,[\,1 - \varphi^2]} \tag{3.15}$$

Using equations(3.13) and (3.15), the integral of equation(3.12) can be written as:

$$-\int_{\varphi_1}^{\varphi_2} \frac{\Phi_o\,[3\varphi^2 - 2]\,d\varphi}{\alpha[\,1 - \varphi^2]} = -1$$

The above equation can be simplified to:

$$\int_{\varphi_1}^{\varphi_2} \left[\frac{1}{1 - \varphi^2} - 3\right] d\varphi = \frac{\alpha}{\Phi_o} \tag{3.16}$$

Where the limits of the integration φ_1 and φ_2 are given by:

$$\varphi_1(\xi = 1) = \tanh(\alpha \pm \delta)$$

$$\varphi_2(\xi = 0) = \tanh(\pm\delta)$$

Using the integration formula given by equation(3.9), evaluation of the integral given by equation(3.16) yields:

$$-3\varphi + \tanh(\pm\delta)\Big|_{\varphi_1}^{\varphi_2} = \frac{\alpha}{\Phi_o}$$

Substituting the limits of the integration obtains:

$$-3\,[\tanh(\pm\delta) - \tanh(\alpha \pm \delta)] - \alpha = \frac{\alpha}{\Phi_o}$$

After several algebraic manipulations, one obtains:

$$1 - \frac{6\,\alpha}{\lambda^2}[\alpha + \tanh(\pm\delta) - \tanh(\alpha \pm \delta)] + \frac{4\,\alpha^2}{\lambda^2} = 0 \qquad (3.17)$$

where only the positive value of δ is relevant here. The negative value produces a velocity function that experiences a flow reversal in the proximity of the flow.

3.2. Numerical Solution

Analytic solution to the problem for flows with both viscous and inertia effects means evaluation of the integral obtained from equation(3.5):

$$\int \frac{d\eta}{\sqrt{-\frac{2}{3}\lambda^2\,\Phi_o(\eta - 1)(\eta - \eta_1)(\eta - \eta_2)}}$$

this may be achieved using Weierstrass or Jacobian elliptic functions[19]. Although extensive tables for elliptic functions do exist, the need to iterate for the pressure distribution makes the process relatively cumbersome; since the values of η are given implicitly, the integral continuity equation has to be evaluated approximately. For these reasons, we have decided to seek a numerical solution. Equation of motion given by equation(2.13) can be written, in terms of central finite differences, as:

$$\left[\frac{\Phi_{j-1}^{L} - 2\,\Phi_{j}^{L} + \Phi_{j+1}^{L-1}}{\Delta\xi^2}\right] + \lambda^2\left[\frac{\Phi_{j-1}^{L} + \Phi_{j+1}^{L-1}}{2}\right]^2 = \lambda^2\,\Delta\Pi^{L} \qquad (3.18)$$

The velocity function inside the domain, see Fig. 3., can be written after several simplification as:

$$\Phi_{j}^{L} = \frac{1}{2}[\Phi_{j-1}^{L} + \Phi_{j+1}^{L-1}] + \frac{\lambda^2\Delta\xi^2}{8}[\Phi_{j-1}^{L} + \Phi_{j+1}^{L-1}]^2 - \frac{\lambda^2\,\Delta\xi^2}{2}\Delta\Pi^{L} \qquad (3.19)$$

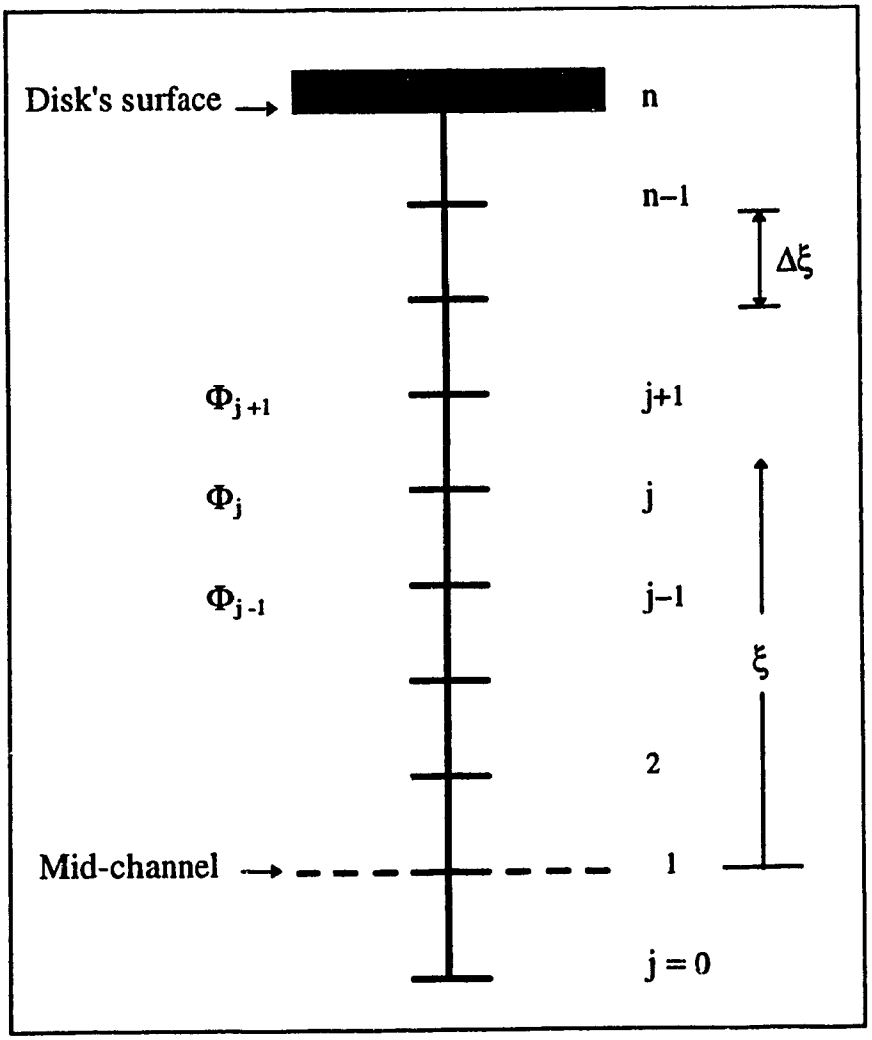

Figure 3. Grid Arrangement.

Where L indicates iteration level. Upon utilization of the first boundary condition at the mid-channel (j = 1), the first derivative in terms of central finite differences is given by:

$$[\Phi_{j=1}]' = \frac{\Phi_{j=2} + \Phi_{j=0}}{2\Delta\xi} = 0$$

which implies that the velocity function are the same before and after the mid-channel:

$$\Phi_{j=2} = \Phi_{j=0}$$

Substituting the above condition into equation(3.19), the velocity function at the mid-channel is given by:

$$\Phi_1^L = (\Phi_2)^{L-1} + \frac{\lambda^2 \Delta\xi^2}{2}[(\Phi_2)^{L-1}]^2 - \frac{\lambda^2 \Delta\xi^2}{2}(\Delta\Pi)^L \qquad (3.20)$$

Making use of the second boundary condition at the disk surface (j = n), the velocity function at the disk surface is given by:

$$\Phi_n^L = 0 \qquad (3.21)$$

In order to calculate the radial pressure distributions $\Delta\Pi$, the integral continuity equation(2.12) must be evaluated:

$$f = 1 + \int_0^1 \Phi(\xi)\, d\xi = 0 \qquad (3.22)$$

The following procedure is adopted to solve the problem:

1. Assume values for $[\Phi]^{L-1}$ and $[\Delta\Pi]^{L-1}$.
2. Assume small increment to the pressure to get $[\Delta\Pi]^{L}$.
3. Apply Gauss-Jordan iteration scheme to calculate $[\Phi_j]^{L}$ using equations (3.20), (3.19) and (3.21) respectively.
4. Evaluate the integral in equation(3.22) via Simpson's rule and find $[f]^{L}$.
5. Is $[f]^{L}$ less than or equal to 10^{-6} ?
6. If yes, the solution has been obtained, otherwise continue.
7. Calculate the new $[\Delta\Pi]^{L+1}$ using bisection method and go back to step (iii).

The initial values of velocity function $[\Phi]^{L-1}$ and pressure distributions $[\Delta\Pi]^{L-1}$ are set from the approximate solution given by Vatistas[20]. All the integration were performed using Simpson's rule. Convergence for the velocity function $[\Phi_j]$ was assumed to have been reach if $\sum_{j=1}^{n} \left| \{(\Phi_j^{L})^2 - (\Phi_j^{L-1})^2\} \right| \leq 10^{-18}$.

CHAPTER IV

RESULTS AND DISCUSSION

The radial velocity and pressure distributions were computed at different number of grid points for same value of λ to estimate their effect on the results. The radial pressure distributions for $\lambda = 1$, 5 and 10 at different number of grid points n =10, 20, 60 and 100, corresponding to $\Delta\xi = 0.1$, 0.05, 0.0167 and 0.01, are presented in Table 1. The radial velocity function for the same values of λ and number of grid points maintained before are plotted in Figures 4, 5 and 6.

	$\lambda = 1$	$\lambda = 5$	$\lambda = 10$
n = 10	4.4710	1.3264	1.1111
n = 20	4.4941	1.3553	1.1529
n = 60	4.5010	1.3639	1.1668
n = 100	4.5016	1.3645	1.1678

Table 1. Radial pressure distribution at different number of grid points.

Although there is a difference between the pressure values at small grid point n = 10 and large grid point n =100, the values do not differ significantly for large number of grid points n = 60 and 100 for all values of λ. For small λ, the radial velocity function do not differ for all different grid points used as shown in Figure 4 for $\lambda = 1$.

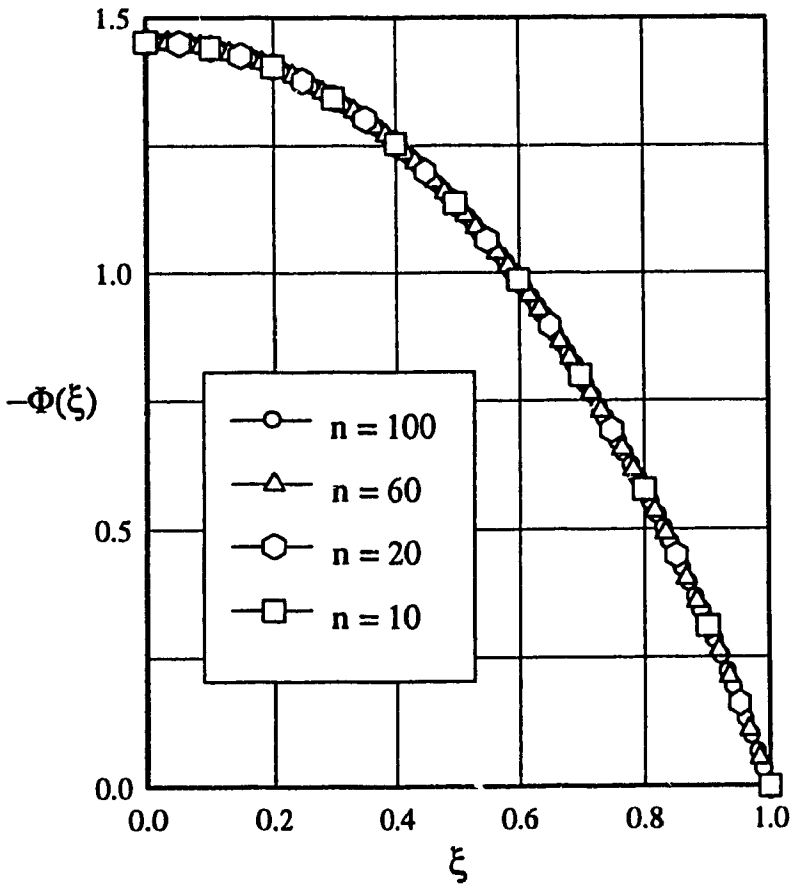

Figure 4. Depedence of velocity function on the number of grid points used ($\lambda = 1$).

As λ increases(Figures 4 and 5), the radial velocity function start to differ slightly for small grid points n = 10 and 20, from their values at large grid points n = 60 and 100. This may occur because at high λ's the velocity profile becomes flat and the radial velocity is almost equal over a large range of ξ.

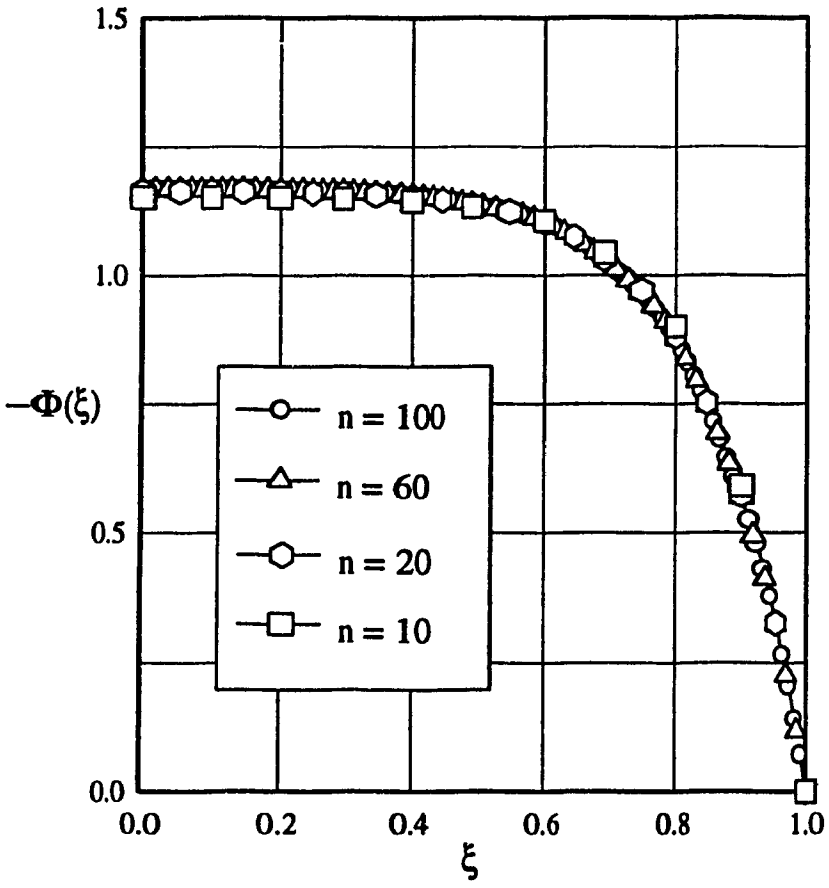

Figure 5. Dependence of velocity function on the number of grid points used ($\lambda = 5$).

Although Figures 4, 5 and 6 show that the radial velocity function do not differ significantly for number of grid points n = 60 and 100, for purpose of accuracy, and in order to achieve appropriate resolution near the disk surface for high λ's, n = 100 corresponding to $\Delta\xi = 0.1$, chosen for all calculations. The computer program and tabulated results are given in Appendix 1 and 2 respectively.

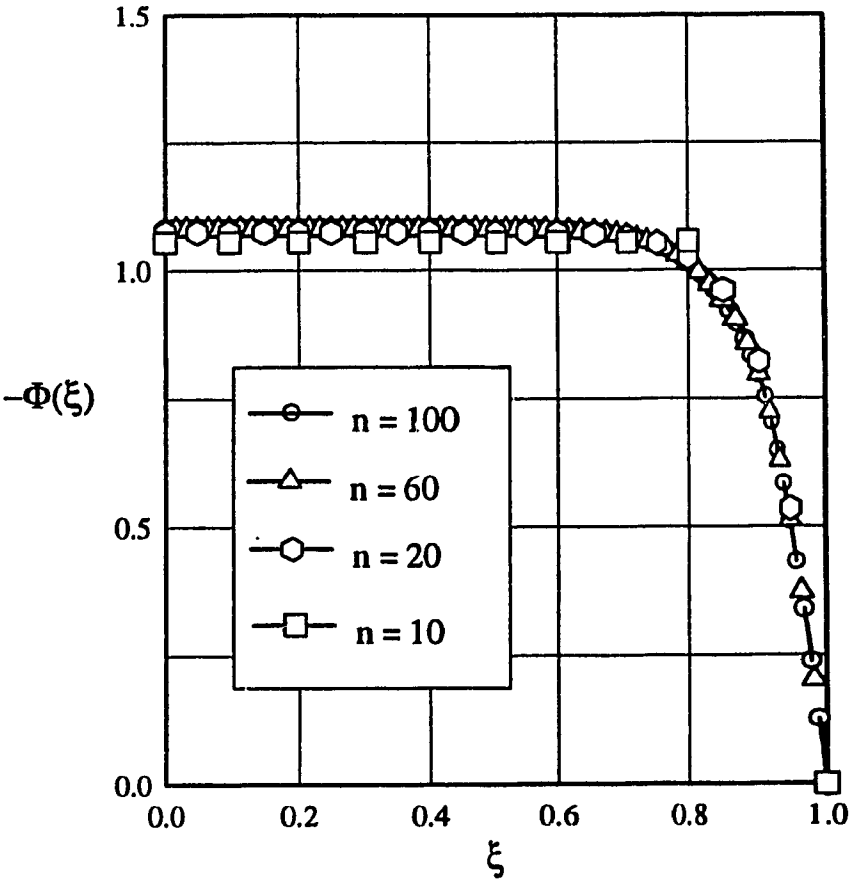

Figure 6. Dependence of velocity function on the number of grid points used (λ = 10).

For each value of λ, the radial pressure distribution, the radial velocity function and its derivatives, are presented. Figures 7, 8 and 9 present those results for low, medium and high values of λ's respectively.

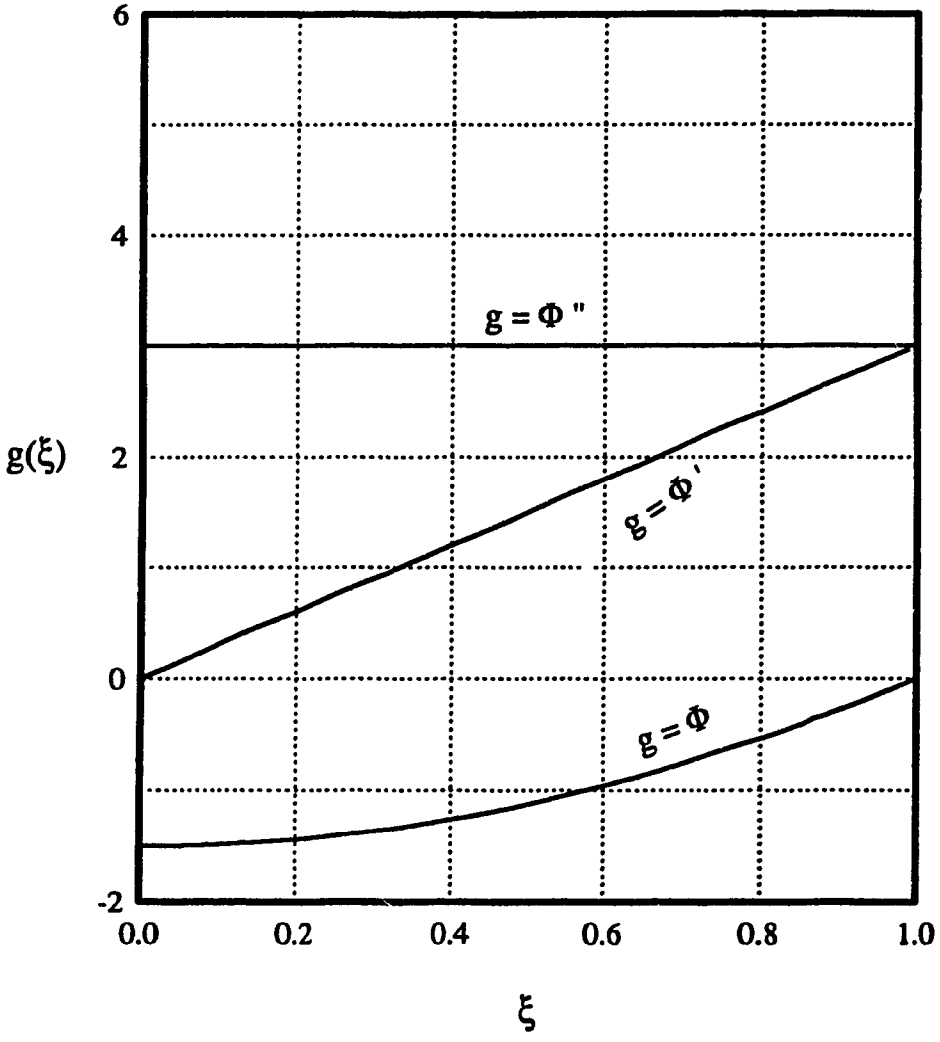

Figure 7. Variation of velocity function and its derivatives for $\lambda = 0.01$

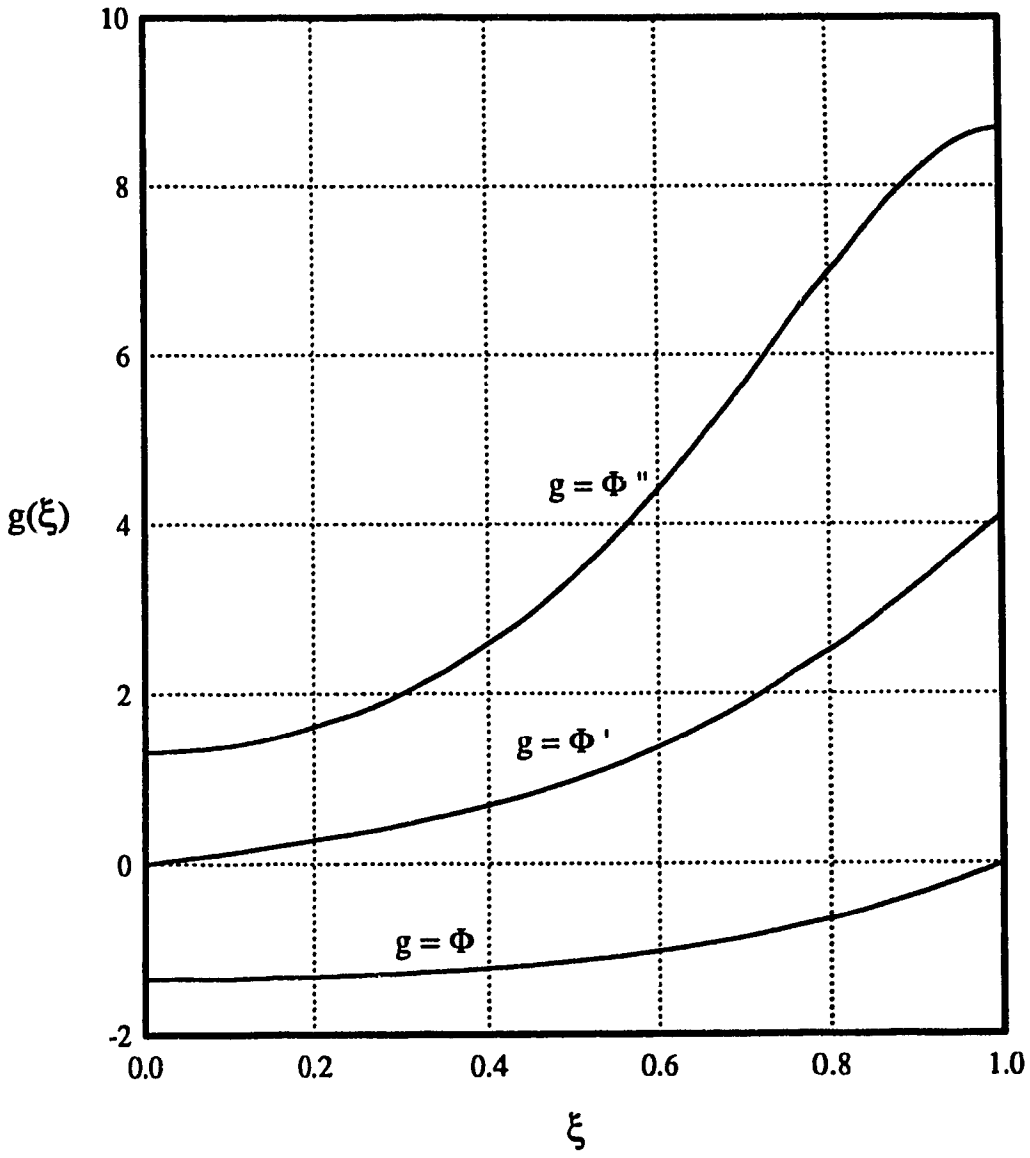

Figure 8. Variation of velocity function and its derivatives for $\lambda = 2$.

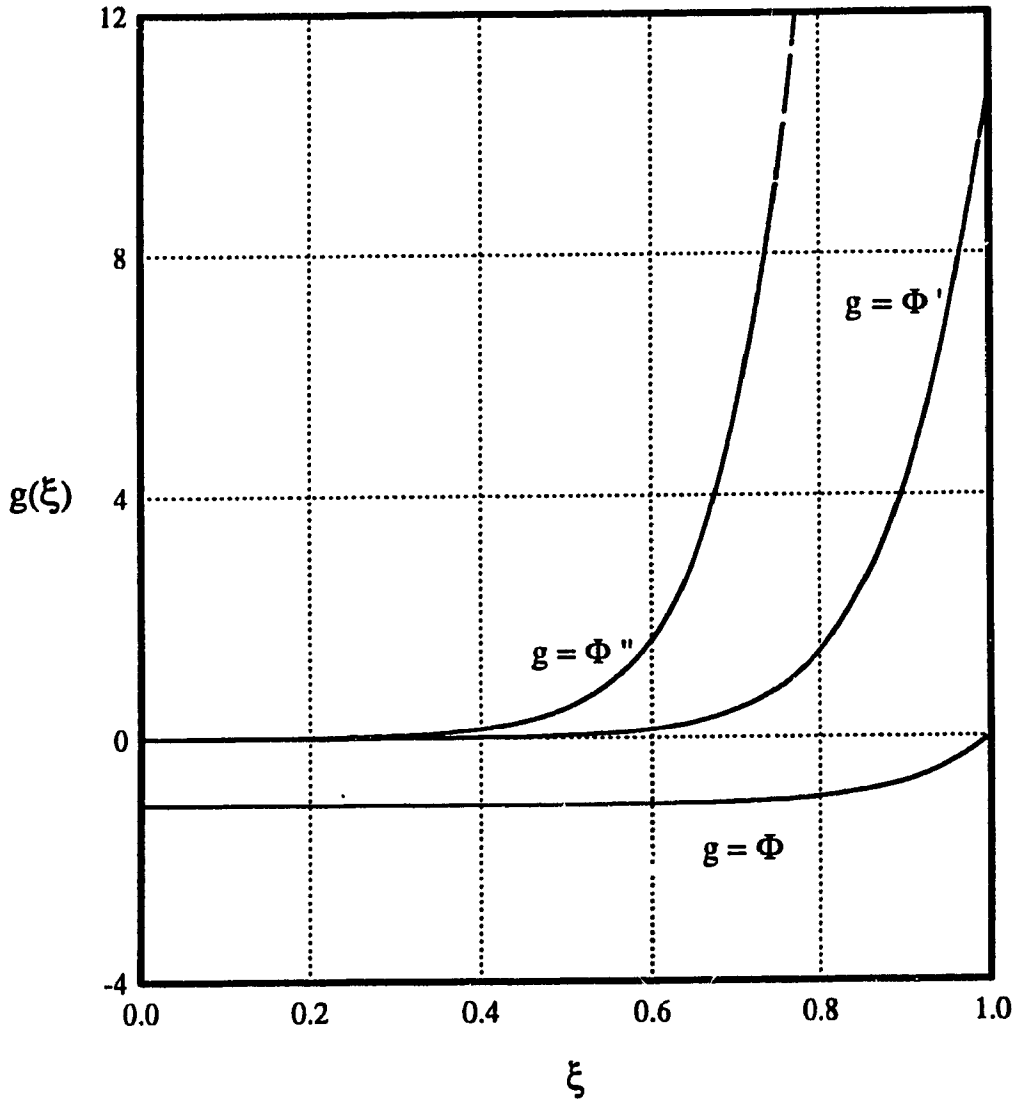

Figure 9. Variation of velocity function and its derivatives for $\lambda = 8.0$

4.1. Radial pressure distribution

The previous studies were mainly focused on the calculation of the radial distributions of the static pressure.

Author	$\Delta\Pi$
Livesey[7]	$\frac{3}{\lambda^2}+1.20$
Savage[10]	$\frac{3}{\lambda^2}+1.54$
Kwok & Lee[16]	$\frac{3}{\lambda^2}+1.54$
Vatistas[19]	$\frac{3}{\lambda^2}+1.00$
Vatistas[20]	$\frac{\lambda}{\lambda-\tanh(\lambda)}$

Table 2. Pressure distribution from several previous studies.

Figure 10 represents a comparison of several previous theories in terms of the new dimensionless variables $\Delta\Pi$ and λ. The formulae associated with the different theories are given in Table 2. Except for the work of Vatistas[19-20], the pressure of the other theories do not satisfy the limiting value of the pressure $\Delta\Pi = 1$ as λ goes to infinity. Although the work of Livesey[7], Savage[10], Kwok and Lee[16] give similar values for the pressure for small λ's, these differ substantially for large λ's. It is however fair to say that these investigations were

intended to describe the flow in the small Reynolds number range which corresponds to small values of λ.

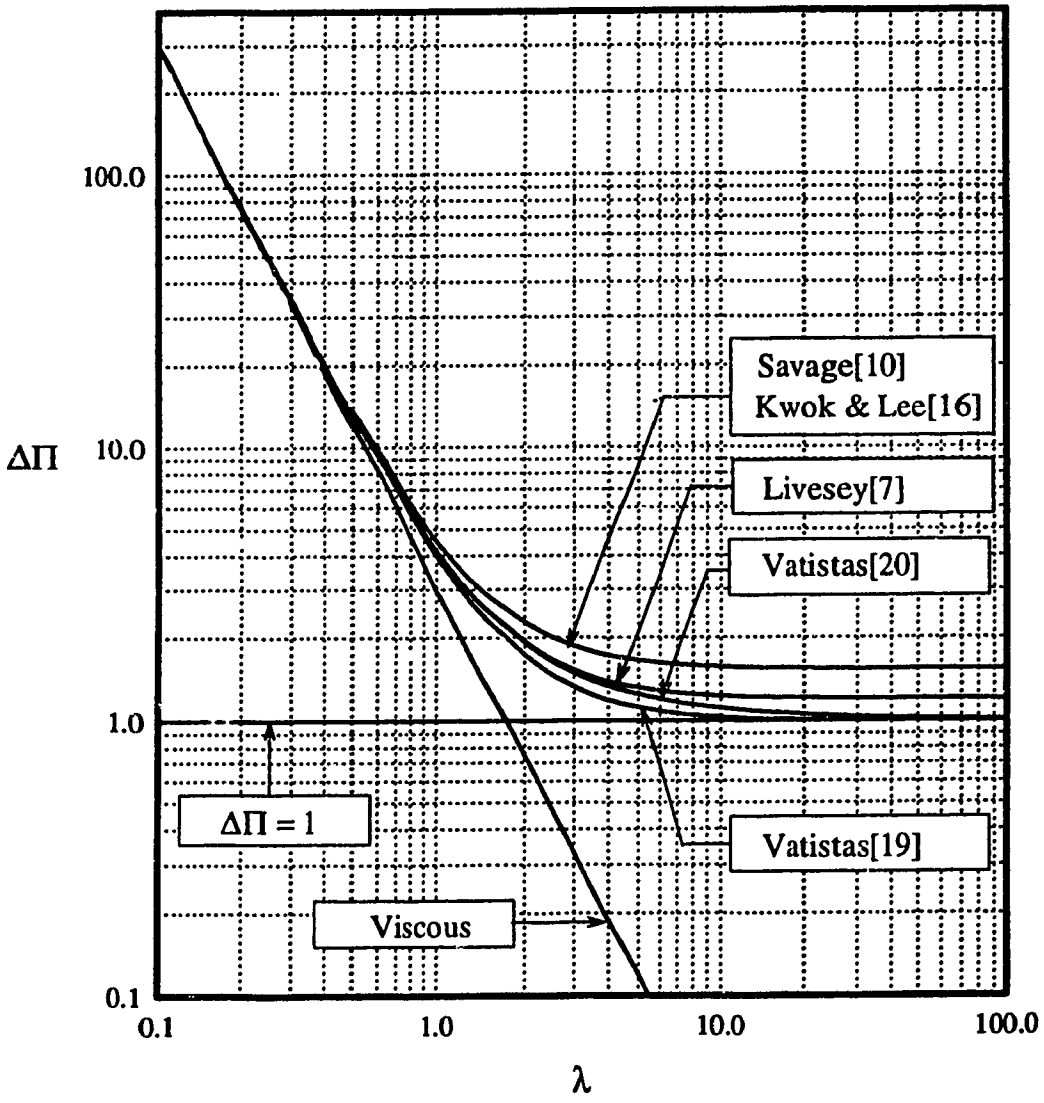

Figure 10. A comparison of the previously derived radial pressure distributions.

The pressure distribution given by Vatistas[19] has been obtained from the superposition of the contributions to the static pressure due to the inertia and the viscous contributions, assuming for the later a parabolic profile for the velocity. The pressure calculations are in close agreement with the results of the linearized theory of Vatistas[20] with a noticeable difference for $1 \leq \lambda \leq 50$.

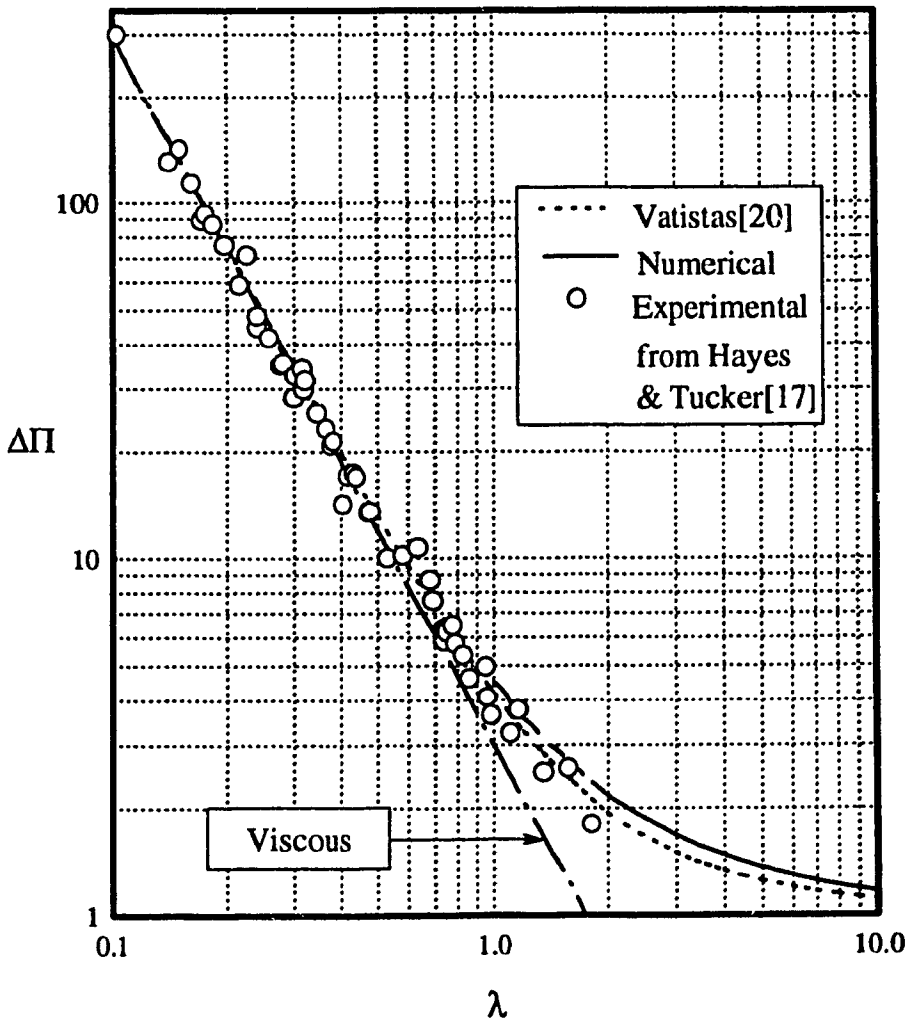

Figure 11. Radial pressure distribution as a function of λ.

In Figure 11, the experimental results of Hayes and Tucker[17], taken from Lee and Lin[18], have been transformed into the new variables, and are compared with the present numerically obtained results and those of Vatistas[20]. The correlation between the observed and the theoretical values is fairly good. The numerical calculated pressure is seen to be slightly higher for $1 \leq \lambda \leq 9$ than that given by the linearized theory.

4.2. Radial velocity variation

Although several previous theories produced pressure expressions that do not vary significantly over a wide range of λ values, the velocity distribution is different. The work of Livesey[7], Savage[10], Kwok and Lee[16], and Vatistas[19] assume a parabolic profile for the velocity. However, this assumption does not approximate reality, except for small values of Reynolds number where the viscous effects dominate the flow. Vatistas[20] produced velocity function that show a good qualitative behavior with the Reynolds number. His study featured an approximate closed form solution that was made possible by linearization of the convective term in the equation of motion. This is given by:

$$\Phi(\xi) = \frac{\lambda}{\lambda - \tanh(\lambda)} \left\{ \frac{\cosh(\lambda \xi)}{\cosh(\lambda)} - 1 \right\} \qquad (4.1)$$

The present numerical radial velocity function over large range of λ are shown in Figure 12. The velocity profile exhibits boundary layer characteristics.

For viscous flows the velocity attained the familiar Poiseuille's parabolic profile as λ goes to zero (see limits of the flow). As λ increases , the velocity values near the mid-channel decreases, accompanied by flattening of its profile due to the inertia effects.

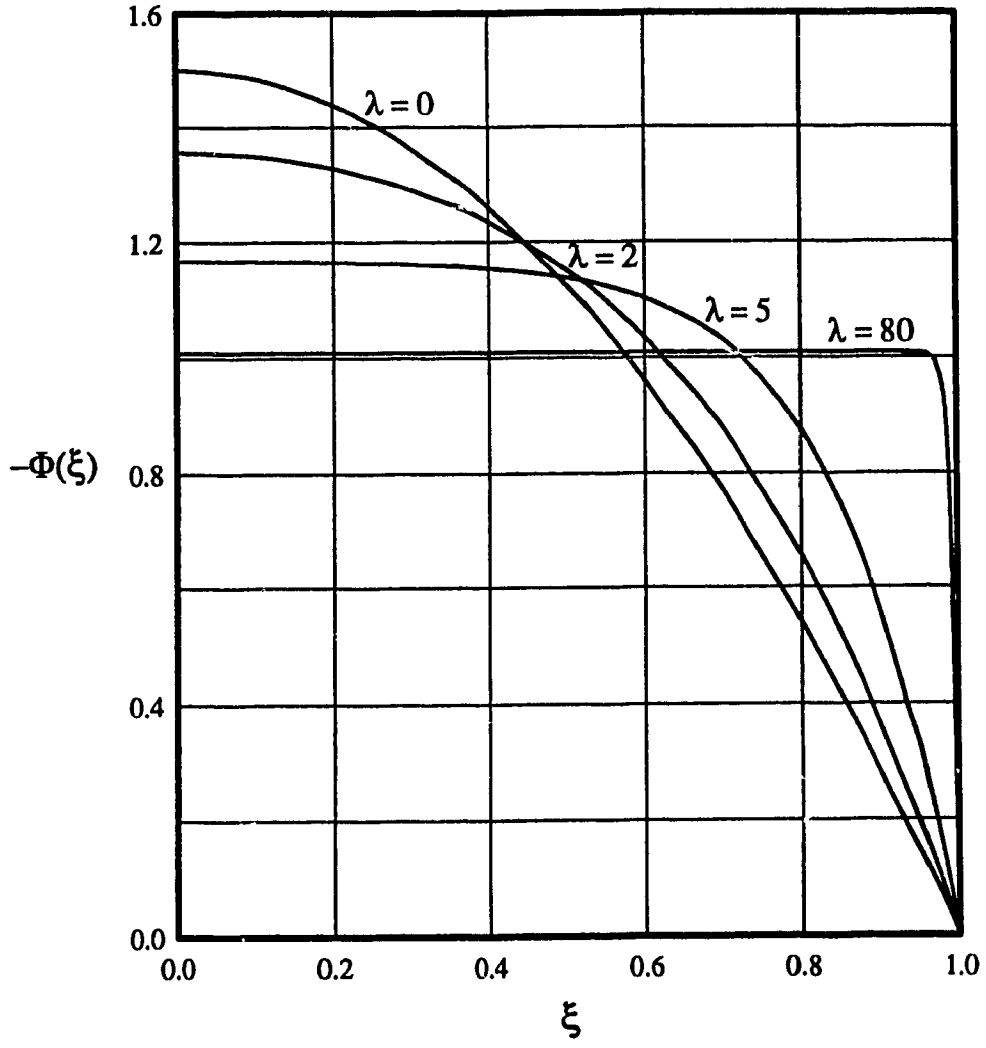

Figure 12. Velocity function for different values of λ.

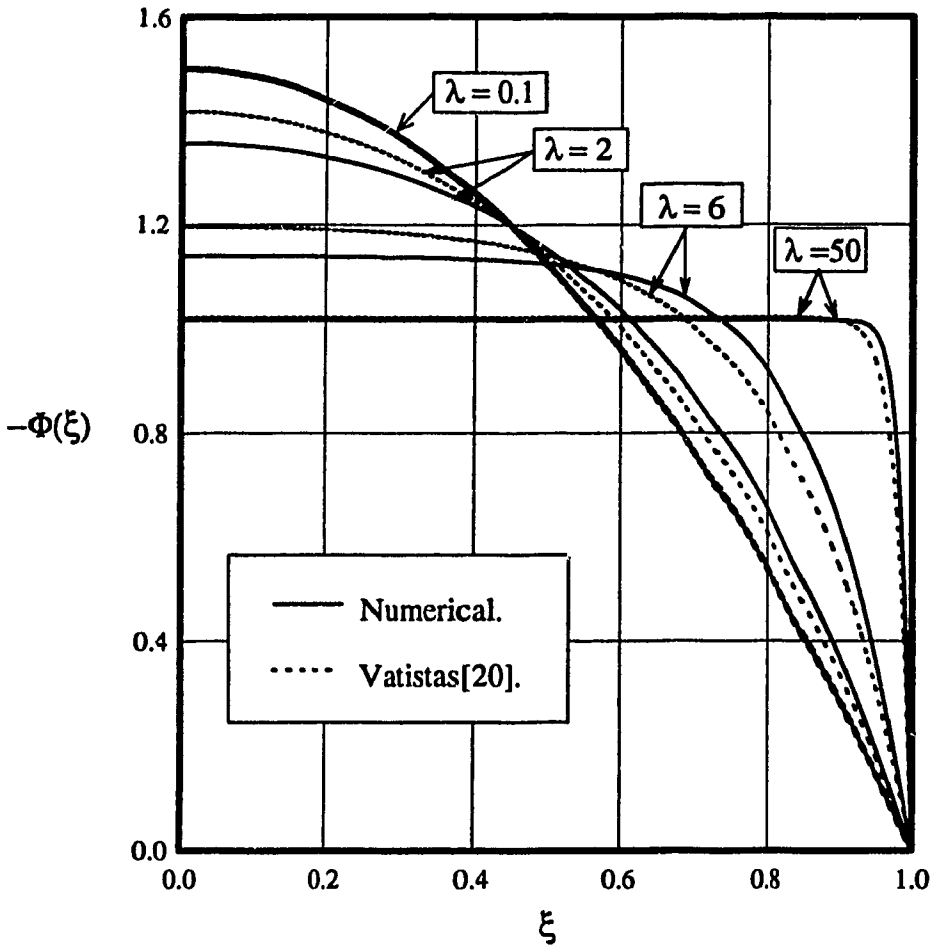

Figure 13. A comparison of the velocity function between the numerical and linearized theory results.

As λ increases further, the flat region is seen to propagate towards the disk surface, reaching the expected constant value $\Phi(\xi) = -1$ in the interval $-1 < \xi < 1$, as the value of λ reaches "infinity", dropping to zero at the disk surface to satisfy the no-slip condition. The radial velocity results of the linearized theory by

Vatistas[20] are not expected to be as accurate, except for very small and very large λ's. This is clear in Figure 13 where it is evident that the linearized theory gives similar values to the numerical results at high and low values of λ, and slightly different values in the range between.

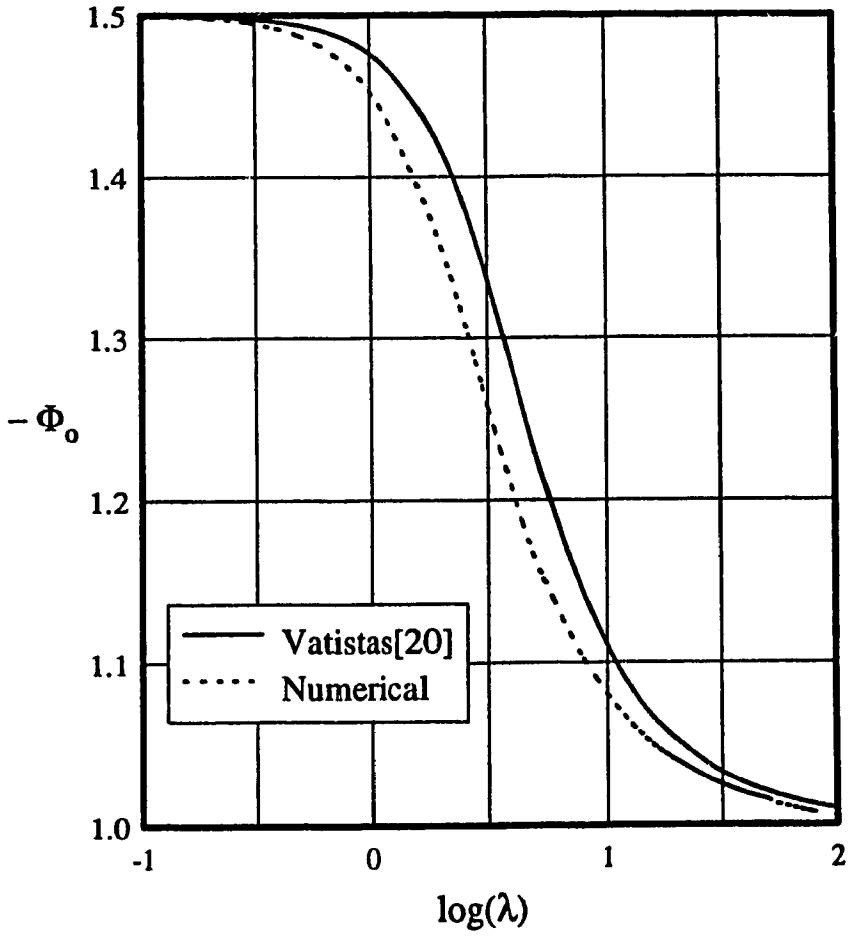

Figure 14. A comparison of the maximum velocity between the numerical and linearized theory results.

The linearized theory produced velocity values that are higher near the mid-channel (see Figure 14), and lower near the disk surface, than those obtained numerically. Consequently, the theory underestimated the wall shear stress.

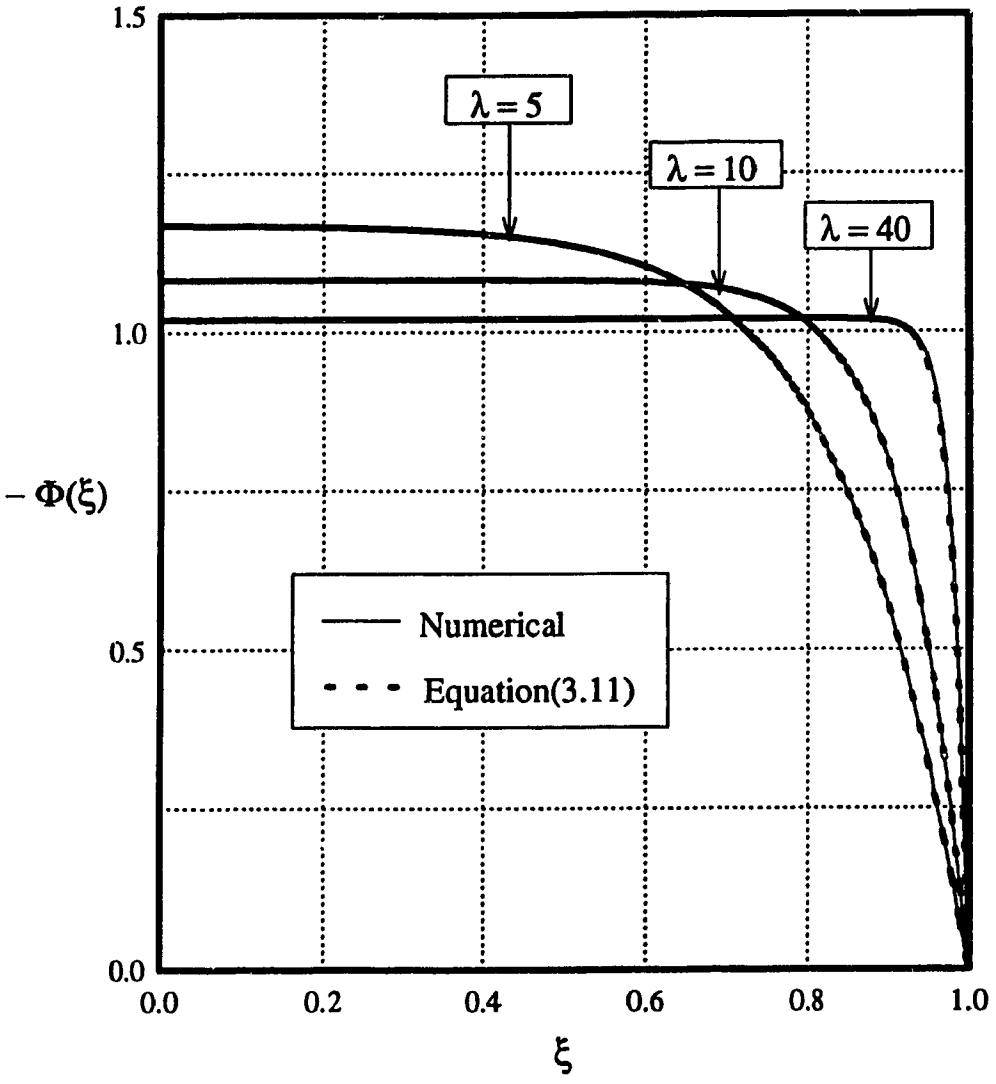

Figure 15. A comparison between the numerically obtained velocity and that calculated for inertia dominated flow.

A comparison between the numerically obtained velocity function and the approximate inertia dominated solution calculated from equation(3.11), which was obtained assuming a flat profile at the mid-channel for high values of λ, is presented in Figure 15. Correlation among the two results is evident. However, it should be noted that this will not be the case for smaller values of λ, where the conformity is seen gradually deteriorate.

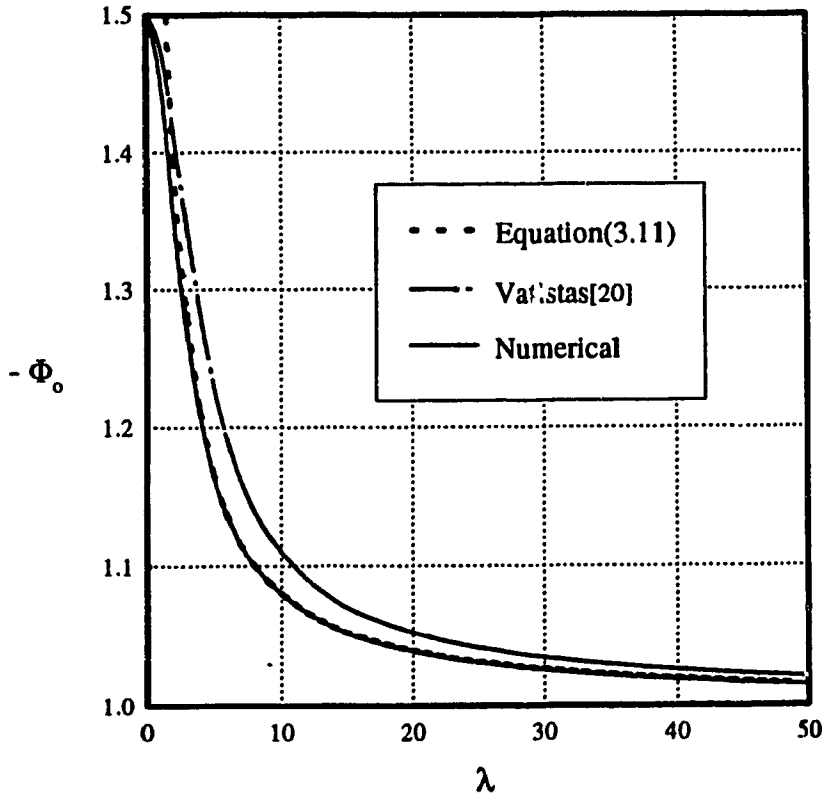

Figure 16. A comparison of the maximum velocity at mid-channel as a function of λ.

This is clear from Figure 16, where the maximum velocity values of the approximate solution start to differ from the computational for values of $\lambda \leq 3$. Although the linearized theory satisfies the limiting values of the velocity, it has higher maximum velocity values than those obtained numerically and analytically by equation(3.11).

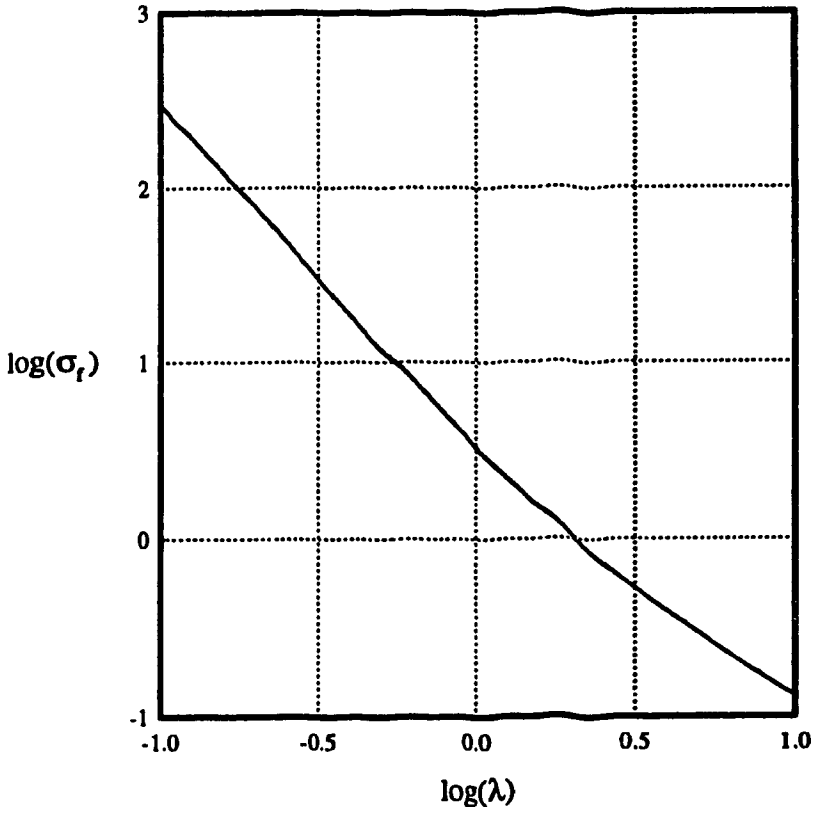

Figure 17. Normalized local friction coefficient at the disk surface as a function of λ.

4.3. Shear Stress

The normalized local frictional coefficient at the disk surface is plotted as a function of $\log(\lambda)$ in Figure 16. It is clear that for small values of λ a high normalized local friction coefficient is produced at the wall, due to the domination of the viscosity effects. As λ increases, the acceleration predominates the flow, and the normalized local friction coefficient decreases, vanishing as λ reaches "infinity".

CHAPTER V

CONCLUSIONS

The laminar radial non-swirling inflow between two closely spaced flat disks was studied. A numerical solution to the non-linear equation of motion has been presented using central finite difference method. An analytical solution for the inertia dominated flow was obtained after simplification of the problem. From the present work the following conclusions can be drawn:

1. The radial pressure distribution and velocity function have been found to be dependent on one dimensionless parameter λ, that combines the Reynolds number and the radial distance.

2. Closed form formulae for the pressure and velocity distributions in terms of the new variables are obtained at the two limiting cases for the flow, where the viscous or the inertia term dominates the flow. The numerical results for both the velocity and pressure were found to satisfy these limits.

3. Comparison between several pressure results of previous studies, it is clear that they agreed well only for small Reynolds numbers.

4. The numerically predicted pressure distribution correlates well with the experimental data. Although, experimental results for the radial velocity function is not available in the literature, due to the difficulty to measure it in the small gap between the disks. Nonetheless, the present numerical work produced realistic radial velocity profiles.

5. The numerically obtained velocity profile was found to exhibit the boundary layer characteristics. The familiar Poiseuille parabolic profile is attained at small values of λ. As λ increases, the value of the velocity decreases at the mid-channel accompanied by flatting its profile, due to inertia effects. As λ increases further, the flat region is seen to propagate towards the disk surface, reaching a constant value over the entire axial direction as λ reaches infinity.

6. In a comparison with linearized theory, both velocity results agreed well at low and high λ's, while elsewhere the linearized theory underestimates the wall shear stress and produced velocity values that are higher near mid-channel and lower near the disk wall than those obtained numerically.

REFERENCES

1. Tabatabai, M. and Pollard, A., "Turbulence in radial flow between Parallel disks at medium and low Reynolds number", *Journal of Fluid Mechanics*, 1987, vol. 185, pp. 483-502.

2. Mochizuki, S. and Yang, W. J., "Self-sustained radial oscillating flows between parallel disks", *Journal of Fluid Mechanics*, 1985, vol. 154, pp. 377-397.

3. Murphy, H. D., Coxon, M. and McEligot, D. M., " Symmetric sink flow between parallel plates ", *Transactions of ASME, Journal of Fluids Engineering* , 1978, vol. 100, pp. 477-484.

4. Murphy, H. D., Chambers, F. W. and McEligot, D. M., "Laterally converging flow" Part 1. Mean flow, *Journal of Fluid Mechanics*, 1983, vol. 127, pp. 379-401.

5. Licht, L. and Fuller, D. D., "A preliminary investigation of an air-lubricated hydrostatic thrust bearing", *ASME*, 1954, Paper No. 54-Lub-18.

6. Woolard, H. W., "A theoretical analysis of the viscous flow in a narrowly spaced radial Diffuser", *Transactions of ASME, Journal of Applied Mechanics,* 1957, vol. 24, pp. 9-15.

7. Livesey, J. L. "Inertia effects in viscous flows", *International Journal of Mechanical Sciences*, 1960, vol. 1, pp. 84-88.

8. Morgan, P. G. and Sanders, A., "An experimental investigation of inertia effects in viscous flows", *International Journal of Mechanical Sciences*, 1960, vol. 2, pp. 8-12.

9. Moller, P. S., "Radial flow without between parallel disks", *Aeronautical Quarterly*, 1963, vol.14, pp. 163-186.

10. Savage, S. B., "Laminar flow between parallel plates", *Transactions of ASME, Journal of Applied Mechanics*, 1964, vol. 31, pp. 594-596.

11. Boyack, B. E. and Rice, W., "An integral solution for laminar radial outflow of viscous fluid between parallel stationary disks", *Transactions of ASME, Journal of Basic Engineering*, 1970, vol. 92, pp. 662-663.

12. Ishizawa, S., "The axisymmetric laminar flow in an arbitrary shaped narrow gap", *1st report. Bulletin Japanese Society of Mechanical Engineers*, 1965, vol. 8, pp. 353-367.

13. Ishizawa, S., "The axisymmetric laminar flow in an arbitrary shaped narrow gap", *2nd report, Bulletin Japanese Society of Mechanical Engineers*, 1966, vol. 9, pp. 86.

14. Wilson, S. D. R., "A note on laminar radial flow between parallel plates", *Applied Science Research*, 1972, vol. 25, pp. 349-354.

15. Raal, J. D., "Radial source flow between parallel disks", *Journal of Fluid Mechanics*, 1978, vol. 85, pp. 401-416.

16. Kwok, C. And Lee, P. M., "Integral equation method for compressible flow between parallel disks", *Transactions Of Canadian Society Of Mechanical Engineers*, 1979, vol. 5, No. 1, pp. 55-58.

17. Hayes, W. F. and Tucker, H. G., "Theoretical radial pressure distribution for viscous fluid inflow within a thin disk chamber", *National Research Council Of Canada, Ottawa, Canada*, 1973, NRC-CS-51.

18. Lee, P. M. and Lin, S. "Pressure distribution for radial inflow between narrowly spaced disks", *Transactions of ASME, Journal of Fluids Engineering*, 1985, vol. 107 , No. 3, pp. 338-341.

19. Vatistas, G. H. "Radial flow between closely placed flat disks", *AIAA Journal*, 1988, vol. 26, No. 7, pp. 887-890.

20. Vatistas, G. H. "Radial flow within two flat disks", *AIAA Journal*, 1990, vol. 28, No. 7, pp. 1308-1310.

21. White, F. M., "Viscous fluid flow", *McGraw Hill, 2nd Edition*, 1991, New York.

APPENDIX I

This program calculates the radial pressure distribution and velocity function for radial inflow between two flat disks.

```
      PARAMETER(N = 101)
      IMPLICIT DOUBLE PRECISION (A-H , O-Z)
c     ------------------------------------------------------------------------
      DIMENSION X(N), PHIOLD(N), PHINEW(N), F(N), FD(N), FDD(N)
c     ------------------------------------------------------------------------
      OPEN( UNIT = 9, FILE = ' L.DAT ', STATUS = ' NEW ' )
c     ------------------------------------------------------------------------

c     parameters are:-
c     ALAMDA   - Lamda.
c     H        - Panel size.
c     N        - Number of points.
c     Z        - Axial coordinate of a point.
c     X(I)     - Array of the axial coordinate of all the points.
c     NPANEL   - Number of panels.
c     NHALF    - Half of the panels
c     POLD[1]  - Intial pressure taken from the linearized theory.
c     STEP     - Pressure step.
c     PHIOLD[2]- Intial radial velocity function taken from linearized theory.
c     CONTY    - Continuity function.
c     TOLRNC   - Tolerance on continuity function.
c     KOUNT    - Number of program iteration.
c     MAXKNT   - Maximum number of program iteration.
c     MAXITR   - Maximum number of iteration inside finite subroutine.
```

[1] See Equation (4.1).
[2] See Table 2.

```
c     ------------------------------------------------------------------
c     Input parameters
c     ------------------------------------------------------------------

      ALAMDA    = 10.
      MAXITR    = 1.E+5
      MAXKOUNT  = 1.E+3
      STEP      = 1.E -1
      TOLC      = 1.E -6

c     ------------------------------------------------------------------
c     Calculations of panels number and panel size
c     ------------------------------------------------------------------

      H         = 1. / (N -1)
      NPANEL    = N -1
      NHALF     = N / 2

c     ------------------------------------------------------------------
c     Define axial coordinate of each point and calculations of pressure
c     and velocity from the linearized theory and setting them as intial
c     conditions.
c     ------------------------------------------------------------------

      POLD = ALAMDA / ( ALAMDA - TANH( ALAMDA ) )
      Z = 0.
      DO 10 I = 1 , N
      X(I) = Z
      PHIOLD(I) = POLD*( COSH( ALAMDA*Z) / COSH(ALAMDA) - 1. )
      Z = Z + H
 10   CONTINUE
      PHIOLD(N) = 0.

c     ------------------------------------------------------------------
c     Assuming small increment to the intial pressure
c     ------------------------------------------------------------------

      KOUNT = 0
      PNEW  = POLD + STEP
 200  KOUNT = KOUNT + 1
```

```
c     ------------------------------------------------------------------------
c     Iteration inside finite difference for new pressure value
c     ------------------------------------------------------------------------

      CALL FINITE( PHIOLD , PHINEW , H , ALAMDA , PNEW , N , M ,
     & MAXITR)
      IF ( M . LT . MAXITR ) GO TO 40
      WRITE(*,*)' increase maximum number of iteration limit '
      GO TO 100

c     ------------------------------------------------------------------------
c     Calculation of the continuity function
c     ------------------------------------------------------------------------

 40   CALL SIMPS( PHINEW , H , N , RES )
      CONTY = 1.+ RES
      IF ( KOUNT . LE . MAXKOUNT ) GO TO 500
      WRITE(*,*)' increase maximum number of kount iteration '
      GO TO 300
500   IF ( ABS (CONTY) . LE . TOLC ) GO TO 300
      DO  50  I = 1 , N
      PHIOLD(I) = PHINEW(I)
 50   CONTINUE
      POLD = PNEW
      IF ( CONTY .GT. 0.0 ) THEN
      PNEW = PNEW + STEP
      GO TO 200
      ELSE
      STEP  = STEP / 2.
      PNEW = PNEW - STEP
      GO TO 200
      ENDIF
 300  CALL DIFER ( PHINEW , H , N , FD , FDD )

c     ------------------------------------------------------------------------
c     write the result
c     ------------------------------------------------------------------------

      WRITE(9,*)' LAMDA              = ' , ALAMDA
      WRITE(9,*)' FINAL PRESSURE     = ' , PNEW
      DO  80  I = 1 , NHALF + 1
```

```
      WRITE(9,99) X(I) , PHINEW(I) , FD(I) , FDD(I) , X(I + NHALF),
     & PHINEW(I + NHALF) , FD(I + NHALF) , FDD(I + NHALF)
   80 CONTINUE
   99 FORMAT( 1X , F4.2 , 1X , F9.4 , 1X , F9.4 , 1X , F9.4 , 8X , F4.2 , 1X ,
     & F9.4 , 1X , F9.4 , 1X , F9.4 )
  100 STOP
      END



      SUBROUTINE FINITE ( PHIOLD , PHINEW , H , ALAMDA , PNEW,
     & N , M , MAXITR )

c     ------------------------------------------------------------------------
c     SUBROUTINE FINITE:
c     This subroutine calculate the new function from the old function
c     and the new pressure
c     ------------------------------------------------------------------------

c     PARAMETERS ARE:-
c     PHIOLD    - Array of old values of PHI function.
c     PHINEW    - Array of new values of PHI function.
c     ANORM     - Normal.
c     TOLN      - Tolerance in the normal value.
c     M         - Number of the iteration inside finite subroutine.

c     ------------------------------------------------------------------------
      IMPLICIT DOUBLE PRECISION (A-H , O-Z)
c     ------------------------------------------------------------------------

      DIMENSION PHIOLD(N) , PHINEW(N)
      REAL      H , ALAMDA , PNEW , TOLN
      INTEGER   N , M , MAXITR

c     ------------------------------------------------------------------------
      TOLN = 1.E-20
      M    = 0
c     ------------------------------------------------------------------------
```

```
  1    PHINEW(1) = PHIOLD(2) + ( H * ALAMDA * PHIOLD(2) )**2 / 2.
   &  - ( H * ALAMDA )**2 * PNEW / 2.
       PHINEW(N) = 0.0

c      ------------------------------------------------------------------------------

       DO  2  I = 2 , N - 1
       PHINEW(I) = ( PHINEW(I-1) + PHIOLD(I+1) ) / 2.+ ( H *ALAMDA*
   &  (PHINEW(I-1) + PHIOLD(I+1)) )**2 / 8.-(H*ALAMDA)**2*PNEW/ 2.
    2  CONTINUE

c      ------------------------------------------------------------------------------

       M          = M + 1
       ANORM = 0.0

c      ------------------------------------------------------------------------------

       DO  3  I = 1 , N
       ANORM = ANORM + ( PHIOLD(I) - PHINEW(I) )**2
    3  CONTINUE

c      ------------------------------------------------------------------------------

       ANORM = DSQRT(ANORM)
       IF ( ANORM . LT . TOLN ) GO TO 5

c      ------------------------------------------------------------------------------

       DO  4  I = 1 , N
       PHIOLD(I) = PHINEW(I)
    4  CONTINUE

c      ------------------------------------------------------------------------------

       IF(M . GT . MAXITR) GO TO 5
       GO TO 1

    5  RETURN
       END
```

```
      SUBROUTINE DIFER( F , H , N , FD , FDD )

c     ------------------------------------------------------------------------------
c     SUBROUTINE DIFFER:
c     This subroutine performs the first and second derivatives of the
c     function PHI.
c     ------------------------------------------------------------------------------

c     PARAMETERS ARE:-
c     F    - Array of values of the function.
c     N    - Number of points.
c     H    - Panel size.
c     FD   - First derivative.
c     FDD  - Second derivative.

c     ------------------------------------------------------------------------------
      IMPLICIT DOUBLE PRECISION (A-H , O-Z)
c     ------------------------------------------------------------------------------

      DIMENSION   F(N) , FD(N) , FDD(N)
      REAL        H
      INTEGER     N

c     ------------------------------------------------------------------------------
c     At the center ( Z = 0 ) : the first derivative is zero from boundary
c     conditions. The second derivative is calculated by central finite
c     difference using first derivative boundary condition.
c     ------------------------------------------------------------------------------

      FD(1)  = 0.0
      FDD(1) = 2.* ( F(2) - F(1) ) / H**2

c     ------------------------------------------------------------------------------
c     At the wall ( Z = 1 ), Calculations of the derivatives using Backward
c     finite difference
c     ------------------------------------------------------------------------------

      FD(N)  = ( F(N-2) - 4. * F(N-1) + 3. * F(N) ) / ( 2.*H )
      FDD(N) = ( 2.* F(N) + 4. * F(N-2) - F(N-3) - 5. * F(N-1) ) / H**2
```

```
c     ------------------------------------------------------------------------
c     Calculations of both derivatives between the center and the wall
c     using finite Central difference
c     ------------------------------------------------------------------------

      DO  1  I = 2 , N - 1
      FD(I)   = ( F(I+1) - F(I-1) ) / ( 2.*H )
      FDD(I) = ( F(I-1) - 2. * F(I) + F(I+1) ) / H**2
    1 CONTINUE
      RETURN
      END



      SUBROUTINE SIMPS( F , H , N , RES )

c     ------------------------------------------------------------------------
c     SUBROUTINE SIMPS:
c     This subroutine performs Simpson's rule integration of a function
c     its  values defined by an array.
c     ------------------------------------------------------------------------

c     PARAMETERS ARE:-
c     F     - Array of values of the function.
c     N     - Number of points.
c     H     - Panel size.
c     RES   - Estimate of the integral that is returned to the caller.

c     ------------------------------------------------------------------------
      IMPLICIT DOUBLE PRECISION (A-H , O-Z)
c     ------------------------------------------------------------------------

      DIMENSION  F(N)
      REAL       H , RES
      INTEGER    N , NPANEL , NHALF , NBEGIN , NEND

c     ------------------------------------------------------------------------
c     Check to see if number of panels is even or odd
c     ------------------------------------------------------------------------
```

```
      NPANEL  = N - 1
      NHALF   = NPANEL / 2
      NBEGIN  = 1
      RES     = 0.0
      IF( (NPANEL - 2 * NHALF) . NE . 0 ) THEN

c     ------------------------------------------------------------------------
c     Number of panels is odd. Use 3/8 rule on first three, and 1/3 rule
c     on the rest
c     ------------------------------------------------------------------------

      RES     = 3. * H / 8. * ( F(1) + 3. * F(2) + 3.*F(3) + F(4) )
      NBEGIN = 4
      IF ( N . EQ . 4 ) RETURN
      ENDIF

c     ------------------------------------------------------------------------
c     Apply 1/3 rule. Add in first, second and the last values.
c     ------------------------------------------------------------------------
      RES = RES + H / 3. * ( F(NBEGIN) + 4.*F(NBEGIN+1) + F(N) )
      NBEGIN = NBEGIN + 2
      IF ( NBEGIN . EQ . N ) RETURN


c     ------------------------------------------------------------------------
c     The pattern after NBEGIN+2 is repetitive. Get NEND, the place
c     to stop
c     ------------------------------------------------------------------------
      NEND = N - 2
      DO  1  I = NBEGIN , NEND , 2
    1 RES    = RES + H / 3. * ( 2. * F(I) + 4.* F(I+1) )
c     ------------------------------------------------------------------------

      RETURN
      END
```

APPENDIX 2

The numerical results for different values of λ are presented in the following tables, where

$\Delta\Pi$	radial pressure distribution
ξ	axial distance from the mid-channel
Φ	radial velocity function
Φ'	first derivative of the velocity function
Φ''	second derivative of the velocity function

$\lambda = 0.01$

$\Delta\Pi = 30001.5$

ξ	Φ	Φ'	Φ''
0.00	-1.5000	0.0000	2.9999
0.01	-1.4998	0.0300	2.9999
0.02	-1.4994	0.0600	2.9999
0.03	-1.4986	0.0900	2.9999
0.04	-1.4976	0.1200	2.9999
0.05	-1.4962	0.1500	2.9999
0.06	-1.4946	0.1800	2.9999
0.07	-1.4926	0.2100	2.9999
0.08	-1.4904	0.2400	2.9999
0.09	-1.4878	0.2700	2.9999
0.10	-1.4850	0.3000	2.9999
0.11	-1.4818	0.3300	2.9999
0.12	-1.4784	0.3600	2.9999
0.13	-1.4746	0.3900	2.9999
0.14	-1.4706	0.4200	2.9999
0.15	-1.4662	0.4500	2.9999
0.16	-1.4616	0.4800	2.9999
0.17	-1.4566	0.5100	2.9999
0.18	-1.4514	0.5400	2.9999
0.19	-1.4458	0.5700	2.9999
0.20	-1.4400	0.6000	2.9999
0.21	-1.4338	0.6300	2.9999
0.22	-1.4274	0.6600	3.0000
0.23	-1.4206	0.6900	3.0000
0.24	-1.4136	0.7200	3.0000
0.25	-1.4062	0.7500	3.0000
0.26	-1.3986	0.7800	3.0000
0.27	-1.3906	0.8100	3.0000
0.28	-1.3824	0.8400	3.0000
0.29	-1.3738	0.8700	3.0000
0.30	-1.3650	0.9000	3.0000
0.31	-1.3558	0.9300	3.0000
0.32	-1.3464	0.9600	3.0000
0.33	-1.3366	0.9900	3.0000
0.34	-1.3266	1.0200	3.0000
0.35	-1.3162	1.0500	3.0000
0.36	-1.3056	1.0800	3.0000
0.37	-1.2946	1.1100	3.0000
0.38	-1.2834	1.1400	3.0000
0.39	-1.2718	1.1700	3.0000
0.40	-1.2600	1.2000	3.0000
0.41	-1.2478	1.2300	3.0000
0.42	-1.2354	1.2600	3.0000
0.43	-1.2226	1.2900	3.0000
0.44	-1.2096	1.3200	3.0000
0.45	-1.1963	1.3500	3.0000
0.46	-1.1826	1.3800	3.0000
0.47	-1.1687	1.4100	3.0000
0.48	-1.1544	1.4400	3.0000
0.49	-1.1399	1.4700	3.0000
0.50	-1.1250	1.5000	3.0000

ξ	Φ	Φ'	Φ''
0.50	-1.1250	1.5000	3.0000
0.51	-1.1099	1.5300	3.0000
0.52	-1.0944	1.5600	3.0000
0.53	-1.0787	1.5900	3.0000
0.54	-1.0626	1.6200	3.0000
0.55	-1.0463	1.6500	3.0000
0.56	-1.0296	1.6800	3.0000
0.57	-1.0127	1.7100	3.0001
0.58	-0.9954	1.7400	3.0001
0.59	-0.9779	1.7700	3.0001
0.60	-0.9600	1.8000	3.0001
0.61	-0.9419	1.8300	3.0001
0.62	-0.9234	1.8600	3.0001
0.63	-0.9047	1.8900	3.0001
0.64	-0.8856	1.9200	3.0001
0.65	-0.8663	1.9500	3.0001
0.66	-0.8466	1.9800	3.0001
0.67	-0.8267	2.0100	3.0001
0.68	-0.8064	2.0400	3.0001
0.69	-0.7859	2.0700	3.0001
0.70	-0.7650	2.1000	3.0001
0.71	-0.7439	2.1300	3.0001
0.72	-0.7224	2.1600	3.0001
0.73	-0.7007	2.1900	3.0001
0.74	-0.6786	2.2200	3.0001
0.75	-0.6563	2.2500	3.0001
0.76	-0.6336	2.2800	3.0001
0.77	-0.6107	2.3100	3.0001
0.78	-0.5874	2.3400	3.0001
0.79	-0.5639	2.3700	3.0001
0.80	-0.5400	2.4000	3.0001
0.81	-0.5159	2.4300	3.0001
0.82	-0.4914	2.4600	3.0001
0.83	-0.4667	2.4900	3.0001
0.84	-0.4416	2.5200	3.0001
0.85	-0.4163	2.5500	3.0001
0.86	-0.3906	2.5800	3.0001
0.87	-0.3647	2.6100	3.0001
0.88	-0.3384	2.6400	3.0001
0.89	-0.3119	2.6700	3.0001
0.90	-0.2850	2.7000	3.0001
0.91	-0.2579	2.7300	3.0001
0.92	-0.2304	2.7600	3.0001
0.93	-0.2027	2.7900	3.0002
0.94	-0.1746	2.8200	3.0002
0.95	-0.1463	2.8500	3.0002
0.96	-0.1176	2.8800	3.0002
0.97	-0.0887	2.9100	3.0002
0.98	-0.0594	2.9400	3.0002
0.99	-0.0299	2.9700	3.0002
1.00	0.0000	3.0000	3.0002

$\lambda = 0.10$

$\Delta\Pi = 301.55$

ξ	Φ	Φ'	Φ''
0.00	-1.4995	0.0000	2.9929
0.01	-1.4993	0.0299	2.9929
0.02	-1.4989	0.0599	2.9930
0.03	-1.4981	0.0898	2.9930
0.04	-1.4971	0.1197	2.9930
0.05	-1.4957	0.1496	2.9931
0.06	-1.4941	0.1796	2.9931
0.07	-1.4921	0.2095	2.9932
0.08	-1.4899	0.2394	2.9932
0.09	-1.4873	0.2694	2.9933
0.10	-1.4845	0.2993	2.9934
0.11	-1.4814	0.3292	2.9935
0.12	-1.4779	0.3592	2.9936
0.13	-1.4742	0.3891	2.9937
0.14	-1.4701	0.4191	2.9938
0.15	-1.4658	0.4490	2.9939
0.16	-1.4612	0.4789	2.9941
0.17	-1.4562	0.5089	2.9942
0.18	-1.4510	0.5388	2.9944
0.19	-1.4454	0.5688	2.9945
0.20	-1.4396	0.5987	2.9947
0.21	-1.4335	0.6287	2.9949
0.22	-1.4270	0.6586	2.9951
0.23	-1.4203	0.6886	2.9953
0.24	-1.4133	0.7185	2.9955
0.25	-1.4059	0.7485	2.9957
0.26	-1.3983	0.7784	2.9959
0.27	-1.3904	0.8084	2.9961
0.28	-1.3821	0.8383	2.9963
0.29	-1.3736	0.8683	2.9966
0.30	-1.3648	0.8983	2.9968
0.31	-1.3556	0.9282	2.9970
0.32	-1.3462	0.9582	2.9973
0.33	-1.3365	0.9882	2.9976
0.34	-1.3264	1.0182	2.9978
0.35	-1.3161	1.0481	2.9981
0.36	-1.3055	1.0781	2.9984
0.37	-1.2945	1.1081	2.9987
0.38	-1.2833	1.1381	2.9990
0.39	-1.2718	1.1681	2.9993
0.40	-1.2599	1.1981	2.9996
0.41	-1.2478	1.2281	2.9999
0.42	-1.2354	1.2581	3.0002
0.43	-1.2226	1.2881	3.0005
0.44	-1.2096	1.3181	3.0008
0.45	-1.1963	1.3481	3.0011
0.46	-1.1827	1.3781	3.0014
0.47	-1.1687	1.4081	3.0018
0.48	-1.1545	1.4382	3.0021
0.49	-1.1400	1.4682	3.0024
0.50	-1.1251	1.4982	3.0028

ξ	Φ	Φ'	Φ''
0.50	-1.1251	1.4982	3.0028
0.51	-1.1100	1.5282	3.0031
0.52	-1.0946	1.5583	3.0034
0.53	-1.0788	1.5883	3.0038
0.54	-1.0628	1.6183	3.0041
0.55	-1.0465	1.6484	3.0045
0.56	-1.0298	1.6784	3.0048
0.57	-1.0129	1.7085	3.0052
0.58	-0.9957	1.7385	3.0055
0.59	-0.9781	1.7686	3.0059
0.60	-0.9603	1.7986	3.0062
0.61	-0.9421	1.8287	3.0065
0.62	-0.9237	1.8588	3.0069
0.63	-0.9050	1.8889	3.0072
0.64	-0.8859	1.9189	3.0076
0.65	-0.8666	1.9490	3.0079
0.66	-0.8470	1.9791	3.0083
0.67	-0.8270	2.0092	3.0086
0.68	-0.8068	2.0393	3.0089
0.69	-0.7862	2.0693	3.0092
0.70	-0.7654	2.0994	3.0096
0.71	-0.7442	2.1295	3.0099
0.72	-0.7228	2.1596	3.0102
0.73	-0.7010	2.1897	3.0105
0.74	-0.6790	2.2198	3.0108
0.75	-0.6566	2.2500	3.0111
0.76	-0.6340	2.2801	3.0114
0.77	-0.6110	2.3102	3.0117
0.78	-0.5878	2.3403	3.0120
0.79	-0.5642	2.3704	3.0122
0.80	-0.5404	2.4005	3.0125
0.81	-0.5162	2.4307	3.0128
0.82	-0.4918	2.4608	3.0130
0.83	-0.4670	2.4909	3.0132
0.84	-0.4420	2.5211	3.0135
0.85	-0.4166	2.5512	3.0137
0.86	-0.3909	2.5813	3.0139
0.87	-0.3650	2.6115	3.0141
0.88	-0.3387	2.6416	3.0143
0.89	-0.3121	2.6718	3.0144
0.90	-0.2853	2.7019	3.0146
0.91	-0.2581	2.7321	3.0148
0.92	-0.2306	2.7622	3.0149
0.93	-0.2029	2.7924	3.0150
0.94	-0.1748	2.8225	3.0151
0.95	-0.1464	2.8527	3.0152
0.96	-0.1177	2.8828	3.0153
0.97	-0.0887	2.9130	3.0153
0.98	-0.0595	2.9431	3.0154
0.99	-0.0299	2.9733	3.0154
1.00	0.0000	3.0034	3.0154

$\lambda = 0.20$

$\Delta\Pi = 76.541$

ξ	Φ	Φ'	Φ''
0.00	-1.4979	0.0000	2.9719
0.01	-1.4977	0.0297	2.9719
0.02	-1.4973	0.0594	2.9720
0.03	-1.4965	0.0892	2.9721
0.04	-1.4955	0.1189	2.9722
0.05	-1.4942	0.1486	2.9723
0.06	-1.4925	0.1783	2.9725
0.07	-1.4906	0.2081	2.9728
0.08	-1.4884	0.2378	2.9730
0.09	-1.4858	0.2675	2.9733
0.10	-1.4830	0.2972	2.9737
0.11	-1.4799	0.3270	2.9740
0.12	-1.4765	0.3567	2.9744
0.13	-1.4728	0.3865	2.9749
0.14	-1.4687	0.4162	2.9754
0.15	-1.4644	0.4460	2.9759
0.16	-1.4598	0.4757	2.9764
0.17	-1.4549	0.5055	2.9770
0.18	-1.4497	0.5353	2.9776
0.19	-1.4442	0.5651	2.9782
0.20	-1.4384	0.5949	2.9789
0.21	-1.4323	0.6246	2.9796
0.22	-1.4259	0.6544	2.9803
0.23	-1.4192	0.6842	2.9811
0.24	-1.4122	0.7141	2.9819
0.25	-1.4049	0.7439	2.9827
0.26	-1.3974	0.7737	2.9835
0.27	-1.3895	0.8036	2.9844
0.28	-1.3813	0.8334	2.9853
0.29	-1.3728	0.8633	2.9863
0.30	-1.3640	0.8931	2.9872
0.31	-1.3549	0.9230	2.9882
0.32	-1.3456	0.9529	2.9892
0.33	-1.3359	0.9828	2.9903
0.34	-1.3259	1.0127	2.9913
0.35	-1.3156	1.0426	2.9924
0.36	-1.3050	1.0725	2.9935
0.37	-1.2942	1.1025	2.9946
0.38	-1.2830	1.1324	2.9958
0.39	-1.2715	1.1624	2.9970
0.40	-1.2597	1.1924	2.9982
0.41	-1.2477	1.2224	2.9994
0.42	-1.2353	1.2524	3.0006
0.43	-1.2226	1.2824	3.0018
0.44	-1.2097	1.3124	3.0031
0.45	-1.1964	1.3424	3.0044
0.46	-1.1828	1.3725	3.0057
0.47	-1.1689	1.4026	3.0070
0.48	-1.1548	1.4326	3.0083
0.49	-1.1403	1.4627	3.0096
0.50	-1.1255	1.4928	3.0110

ξ	Φ	Φ'	Φ''
0.50	-1.1255	1.4928	3.0110
0.51	-1.1104	1.5229	3.0123
0.52	-1.0950	1.5531	3.0137
0.53	-1.0794	1.5832	3.0150
0.54	-1.0634	1.6134	3.0164
0.55	-1.0471	1.6435	3.0178
0.56	-1.0305	1.6737	3.0192
0.57	-1.0136	1.7039	3.0205
0.58	-0.9964	1.7341	3.0219
0.59	-0.9789	1.7644	3.0233
0.60	-0.9611	1.7946	3.0247
0.61	-0.9430	1.8249	3.0261
0.62	-0.9246	1.8551	3.0274
0.63	-0.9059	1.8854	3.0288
0.64	-0.8869	1.9157	3.0302
0.65	-0.8676	1.9460	3.0315
0.66	-0.8480	1.9763	3.0329
0.67	-0.8281	2.0067	3.0342
0.68	-0.8079	2.0370	3.0355
0.69	-0.7874	2.0674	3.0368
0.70	-0.7665	2.0978	3.0381
0.71	-0.7454	2.1281	3.0394
0.72	-0.7240	2.1585	3.0407
0.73	-0.7022	2.1890	3.0419
0.74	-0.6802	2.2194	3.0431
0.75	-0.6578	2.2498	3.0443
0.76	-0.6352	2.2803	3.0455
0.77	-0.6122	2.3107	3.0466
0.78	-0.5890	2.3412	3.0478
0.79	-0.5654	2.3717	3.0488
0.80	-0.5415	2.4022	3.0499
0.81	-0.5174	2.4327	3.0509
0.82	-0.4929	2.4632	3.0519
0.83	-0.4681	2.4937	3.0529
0.84	-0.4430	2.5243	3.0538
0.85	-0.4176	2.5548	3.0547
0.86	-0.3919	2.5853	3.0555
0.87	-0.3659	2.6159	3.0563
0.88	-0.3396	2.6465	3.0570
0.89	-0.3130	2.6770	3.0577
0.90	-0.2861	2.7076	3.0584
0.91	-0.2588	2.7382	3.0590
0.92	-0.2313	2.7688	3.0595
0.93	-0.2035	2.7994	3.0600
0.94	-0.1753	2.8300	3.0604
0.95	-0.1469	2.8606	3.0608
0.96	-0.1181	2.8912	3.0611
0.97	-0.0890	2.9218	3.0613
0.98	-0.0597	2.9524	3.0615
0.99	-0.0300	2.9831	3.0616
1.00	0.0000	3.0137	3.0617

$\lambda = 0.30$

$\Delta\Pi = 34.872$

ξ	Φ	Φ'	Φ''
0.00	-1.4952	0.0000	2.9373
0.01	-1.4951	0.0294	2.9373
0.02	-1.4946	0.0587	2.9374
0.03	-1.4939	0.0881	2.9376
0.04	-1.4929	0.1175	2.9379
0.05	-1.4916	0.1469	2.9383
0.06	-1.4899	0.1763	2.9387
0.07	-1.4880	0.2057	2.9392
0.08	-1.4858	0.2351	2.9398
0.09	-1.4833	0.2645	2.9405
0.10	-1.4805	0.2939	2.9412
0.11	-1.4775	0.3233	2.9420
0.12	-1.4741	0.3527	2.9429
0.13	-1.4704	0.3821	2.9439
0.14	-1.4664	0.4116	2.9450
0.15	-1.4622	0.4410	2.9461
0.16	-1.4576	0.4705	2.9473
0.17	-1.4528	0.5000	2.9485
0.18	-1.4476	0.5295	2.9499
0.19	-1.4422	0.5590	2.9513
0.20	-1.4364	0.5885	2.9528
0.21	-1.4304	0.6180	2.9544
0.22	-1.4241	0.6476	2.9560
0.23	-1.4174	0.6772	2.9577
0.24	-1.4105	0.7067	2.9594
0.25	-1.4033	0.7363	2.9613
0.26	-1.3958	0.7660	2.9631
0.27	-1.3880	0.7956	2.9651
0.28	-1.3799	0.8253	2.9671
0.29	-1.3715	0.8550	2.9692
0.30	-1.3628	0.8847	2.9713
0.31	-1.3538	0.9144	2.9735
0.32	-1.3445	0.9441	2.9758
0.33	-1.3349	0.9739	2.9781
0.34	-1.3250	1.0037	2.9805
0.35	-1.3148	1.0335	2.9829
0.36	-1.3044	1.0633	2.9854
0.37	-1.2936	1.0932	2.9879
0.38	-1.2825	1.1231	2.9905
0.39	-1.2711	1.1530	2.9931
0.40	-1.2594	1.1830	2.9957
0.41	-1.2475	1.2129	2.9984
0.42	-1.2352	1.2429	3.0012
0.43	-1.2226	1.2730	3.0040
0.44	-1.2097	1.3030	3.0068
0.45	-1.1965	1.3331	3.0096
0.46	-1.1831	1.3632	3.0125
0.47	-1.1693	1.3933	3.0154
0.48	-1.1552	1.4235	3.0184
0.49	-1.1408	1.4537	3.0214
0.50	-1.1261	1.4839	3.0244

ξ	Φ	Φ'	Φ''
0.50	-1.1261	1.4839	3.0244
0.51	-1.1111	1.5142	3.0274
0.52	-1.0958	1.5445	3.0304
0.53	-1.0802	1.5748	3.0335
0.54	-1.0643	1.6052	3.0365
0.55	-1.0481	1.6355	3.0396
0.56	-1.0316	1.6660	3.0427
0.57	-1.0148	1.6964	3.0458
0.58	-0.9977	1.7269	3.0489
0.59	-0.9803	1.7574	3.0520
0.60	-0.9625	1.7879	3.0551
0.61	-0.9445	1.8185	3.0582
0.62	-0.9262	1.8491	3.0613
0.63	-0.9075	1.8797	3.0644
0.64	-0.8886	1.9104	3.0674
0.65	-0.8693	1.9410	3.0705
0.66	-0.8498	1.9718	3.0735
0.67	-0.8299	2.0025	3.0765
0.68	-0.8097	2.0333	3.0795
0.69	-0.7892	2.0641	3.0824
0.70	-0.7684	2.0949	3.0853
0.71	-0.7473	2.1258	3.0882
0.72	-0.7259	2.1567	3.0911
0.73	-0.7042	2.1876	3.0938
0.74	-0.6822	2.2186	3.0966
0.75	-0.6598	2.2496	3.0993
0.76	-0.6372	2.2806	3.1019
0.77	-0.6142	2.3116	3.1045
0.78	-0.5909	2.3427	3.1070
0.79	-0.5674	2.3737	3.1095
0.80	-0.5435	2.4049	3.1119
0.81	-0.5193	2.4360	3.1142
0.82	-0.4947	2.4671	3.1164
0.83	-0.4699	2.4983	3.1186
0.84	-0.4448	2.5295	3.1207
0.85	-0.4193	2.5607	3.1226
0.86	-0.3936	2.5920	3.1245
0.87	-0.3675	2.6232	3.1263
0.88	-0.3411	2.6545	3.1280
0.89	-0.3144	2.6858	3.1296
0.90	-0.2874	2.7171	3.1310
0.91	-0.2601	2.7484	3.1324
0.92	-0.2324	2.7797	3.1336
0.93	-0.2045	2.8111	3.1347
0.94	-0.1762	2.8424	3.1357
0.95	-0.1476	2.8738	3.1365
0.96	-0.1187	2.9051	3.1372
0.97	-0.0895	2.9365	3.1377
0.98	-0.0600	2.9679	3.1381
0.99	-0.0301	2.9993	3.1384
1.00	0.0000	3.0307	3.1386

$\lambda = 0.40$

$\Delta\Pi = 20.285$

ξ	Φ	Φ'	Φ''
0.00	-1.4916	0.0000	2.8897
0.01	-1.4915	0.0289	2.8898
0.02	-1.4910	0.0578	2.8900
0.03	-1.4903	0.0867	2.8904
0.04	-1.4893	0.1156	2.8908
0.05	-1.4880	0.1445	2.8915
0.06	-1.4864	0.1734	2.8922
0.07	-1.4845	0.2024	2.8931
0.08	-1.4823	0.2313	2.8941
0.09	-1.4799	0.2602	2.8953
0.10	-1.4771	0.2892	2.8966
0.11	-1.4741	0.3182	2.8980
0.12	-1.4708	0.3472	2.8996
0.13	-1.4672	0.3762	2.9013
0.14	-1.4633	0.4052	2.9031
0.15	-1.4591	0.4342	2.9051
0.16	-1.4546	0.4633	2.9072
0.17	-1.4498	0.4924	2.9094
0.18	-1.4447	0.5215	2.9118
0.19	-1.4394	0.5506	2.9142
0.20	-1.4337	0.5798	2.9168
0.21	-1.4278	0.6090	2.9195
0.22	-1.4215	0.6382	2.9224
0.23	-1.4150	0.6674	2.9254
0.24	-1.4082	0.6967	2.9284
0.25	-1.4011	0.7260	2.9316
0.26	-1.3937	0.7553	2.9349
0.27	-1.3860	0.7847	2.9384
0.28	-1.3780	0.8141	2.9419
0.29	-1.3697	0.8435	2.9455
0.30	-1.3611	0.8730	2.9493
0.31	-1.3522	0.9025	2.9531
0.32	-1.3431	0.9320	2.9571
0.33	-1.3336	0.9616	2.9612
0.34	-1.3238	0.9913	2.9653
0.35	-1.3138	1.0209	2.9696
0.36	-1.3034	1.0507	2.9739
0.37	-1.2927	1.0804	2.9783
0.38	-1.2818	1.1102	2.9828
0.39	-1.2705	1.1401	2.9874
0.40	-1.2590	1.1700	2.9921
0.41	-1.2471	1.1999	2.9968
0.42	-1.2350	1.2299	3.0017
0.43	-1.2225	1.2600	3.0066
0.44	-1.2098	1.2900	3.0115
0.45	-1.1967	1.3202	3.0166
0.46	-1.1834	1.3504	3.0216
0.47	-1.1697	1.3806	3.0268
0.48	-1.1558	1.4109	3.0320
0.49	-1.1415	1.4413	3.0372
0.50	-1.1270	1.4717	3.0425

ξ	Φ	Φ'	Φ''
0.50	-1.1270	1.4717	3.0425
0.51	-1.1121	1.5021	3.0478
0.52	-1.0969	1.5326	3.0532
0.53	-1.0814	1.5632	3.0586
0.54	-1.0656	1.5938	3.0640
0.55	-1.0496	1.6245	3.0694
0.56	-1.0332	1.6552	3.0749
0.57	-1.0165	1.6859	3.0804
0.58	-0.9994	1.7168	3.0859
0.59	-0.9821	1.7477	3.0914
0.60	-0.9645	1.7786	3.0969
0.61	-0.9465	1.8096	3.1023
0.62	-0.9283	1.8407	3.1078
0.63	-0.9097	1.8718	3.1133
0.64	-0.8909	1.9029	3.1187
0.65	-0.8717	1.9341	3.1241
0.66	-0.8522	1.9654	3.1295
0.67	-0.8324	1.9967	3.1348
0.68	-0.8122	2.0281	3.1401
0.69	-0.7918	2.0595	3.1454
0.70	-0.7710	2.0910	3.1506
0.71	-0.7500	2.1225	3.1557
0.72	-0.7286	2.1541	3.1607
0.73	-0.7069	2.1858	3.1657
0.74	-0.6849	2.2174	3.1706
0.75	-0.6626	2.2492	3.1754
0.76	-0.6399	2.2809	3.1802
0.77	-0.6169	2.3128	3.1848
0.78	-0.5936	2.3446	3.1893
0.79	-0.5700	2.3766	3.1937
0.80	-0.5461	2.4085	3.1980
0.81	-0.5219	2.4405	3.2021
0.82	-0.4973	2.4725	3.2061
0.83	-0.4724	2.5046	3.2100
0.84	-0.4472	2.5367	3.2137
0.85	-0.4217	2.5689	3.2172
0.86	-0.3958	2.6011	3.2206
0.87	-0.3697	2.6333	3.2238
0.88	-0.3432	2.6656	3.2268
0.89	-0.3163	2.6978	3.2296
0.90	-0.2892	2.7302	3.2323
0.91	-0.2617	2.7625	3.2347
0.92	-0.2340	2.7949	3.2369
0.93	-0.2058	2.8272	3.2389
0.94	-0.1774	2.8596	3.2406
0.95	-0.1487	2.8920	3.2421
0.96	-0.1196	2.9245	3.2434
0.97	-0.0902	2.9569	3.2443
0.98	-0.0604	2.9894	3.2451
0.99	-0.0304	3.0218	3.2455
1.00	0.0000	3.0543	3.2459

$\lambda = 0.50$

$\Delta\Pi = 13.531$

ξ	Φ	Φ'	Φ''
0.00	-1.4870	0.0000	2.8301
0.01	-1.4869	0.0283	2.8302
0.02	-1.4864	0.0566	2.8306
0.03	-1.4857	0.0849	2.8311
0.04	-1.4847	0.1132	2.8318
0.05	-1.4835	0.1416	2.8328
0.06	-1.4819	0.1699	2.8339
0.07	-1.4801	0.1982	2.8353
0.08	-1.4780	0.2266	2.8369
0.09	-1.4755	0.2550	2.8386
0.10	-1.4729	0.2834	2.8406
0.11	-1.4699	0.3118	2.8428
0.12	-1.4666	0.3402	2.8452
0.13	-1.4631	0.3687	2.8478
0.14	-1.4592	0.3972	2.8506
0.15	-1.4551	0.4257	2.8536
0.16	-1.4507	0.4543	2.8568
0.17	-1.4460	0.4828	2.8602
0.18	-1.4411	0.5115	2.8638
0.19	-1.4358	0.5401	2.8675
0.20	-1.4303	0.5688	2.8715
0.21	-1.4244	0.5975	2.8757
0.22	-1.4183	0.6263	2.8800
0.23	-1.4119	0.6551	2.8846
0.24	-1.4052	0.6840	2.8893
0.25	-1.3982	0.7129	2.8942
0.26	-1.3910	0.7419	2.8992
0.27	-1.3834	0.7709	2.9045
0.28	-1.3755	0.8000	2.9099
0.29	-1.3674	0.8291	2.9155
0.30	-1.3590	0.8583	2.9212
0.31	-1.3502	0.8875	2.9272
0.32	-1.3412	0.9168	2.9332
0.33	-1.3319	0.9462	2.9394
0.34	-1.3223	0.9756	2.9458
0.35	-1.3124	1.0051	2.9523
0.36	-1.3022	1.0347	2.9590
0.37	-1.2917	1.0643	2.9658
0.38	-1.2809	1.0940	2.9728
0.39	-1.2698	1.1238	2.9798
0.40	-1.2584	1.1536	2.9870
0.41	-1.2467	1.1835	2.9943
0.42	-1.2347	1.2135	3.0018
0.43	-1.2225	1.2435	3.0093
0.44	-1.2099	1.2737	3.0170
0.45	-1.1970	1.3039	3.0247
0.46	-1.1838	1.3342	3.0326
0.47	-1.1703	1.3645	3.0405
0.48	-1.1565	1.3950	3.0485
0.49	-1.1424	1.4255	3.0566
0.50	-1.1280	1.4561	3.0648

ξ	Φ	Φ'	Φ''
0.50	-1.1280	1.4561	3.0648
0.51	-1.1133	1.4868	3.0731
0.52	-1.0983	1.5176	3.0814
0.53	-1.0829	1.5484	3.0897
0.54	-1.0673	1.5794	3.0981
0.55	-1.0513	1.6104	3.1066
0.56	-1.0351	1.6415	3.1151
0.57	-1.0185	1.6727	3.1236
0.58	-1.0016	1.7040	3.1321
0.59	-0.9844	1.7353	3.1406
0.60	-0.9669	1.7668	3.1492
0.61	-0.9491	1.7983	3.1577
0.62	-0.9310	1.8299	3.1662
0.63	-0.9125	1.8616	3.1747
0.64	-0.8937	1.8934	3.1832
0.65	-0.8746	1.9253	3.1917
0.66	-0.8552	1.9573	3.2000
0.67	-0.8355	1.9893	3.2084
0.68	-0.8154	2.0214	3.2167
0.69	-0.7951	2.0536	3.2249
0.70	-0.7744	2.0859	3.2330
0.71	-0.7533	2.1183	3.2410
0.72	-0.7320	2.1507	3.2489
0.73	-0.7103	2.1833	3.2567
0.74	-0.6883	2.2159	3.2644
0.75	-0.6660	2.2486	3.2720
0.76	-0.6434	2.2813	3.2794
0.77	-0.6204	2.3142	3.2867
0.78	-0.5971	2.3471	3.2938
0.79	-0.5734	2.3800	3.3007
0.80	-0.5495	2.4131	3.3074
0.81	-0.5252	2.4462	3.3139
0.82	-0.5006	2.4793	3.3202
0.83	-0.4756	2.5126	3.3263
0.84	-0.4503	2.5459	3.3322
0.85	-0.4247	2.5792	3.3378
0.86	-0.3987	2.6126	3.3431
0.87	-0.3724	2.6461	3.3482
0.88	-0.3458	2.6796	3.3530
0.89	-0.3188	2.7131	3.3574
0.90	-0.2915	2.7467	3.3616
0.91	-0.2639	2.7804	3.3654
0.92	-0.2359	2.8140	3.3689
0.93	-0.2076	2.8477	3.3721
0.94	-0.1790	2.8815	3.3748
0.95	-0.1500	2.9152	3.3772
0.96	-0.1207	2.9490	3.3792
0.97	-0.0910	2.9828	3.3808
0.98	-0.0610	3.0166	3.3819
0.99	-0.0307	3.0505	3.3826
1.00	0.0000	3.0843	3.3833

$\lambda = 0.60$

$\Delta\Pi = 9.8600$

ξ	Φ	Φ'	Φ''
0.00	-1.4815	0.0000	2.7595
0.01	-1.4814	0.0276	2.7597
0.02	-1.4810	0.0552	2.7601
0.03	-1.4803	0.0828	2.7609
0.04	-1.4793	0.1104	2.7619
0.05	-1.4781	0.1380	2.7632
0.06	-1.4766	0.1657	2.7648
0.07	-1.4748	0.1933	2.7667
0.08	-1.4727	0.2210	2.7689
0.09	-1.4704	0.2487	2.7714
0.10	-1.4677	0.2764	2.7742
0.11	-1.4648	0.3042	2.7773
0.12	-1.4616	0.3320	2.7806
0.13	-1.4582	0.3598	2.7843
0.14	-1.4545	0.3877	2.7882
0.15	-1.4504	0.4156	2.7924
0.16	-1.4461	0.4435	2.7969
0.17	-1.4416	0.4715	2.8016
0.18	-1.4367	0.4996	2.8066
0.19	-1.4316	0.5277	2.8119
0.20	-1.4262	0.5558	2.8175
0.21	-1.4205	0.5840	2.8234
0.22	-1.4145	0.6123	2.8295
0.23	-1.4082	0.6406	2.8358
0.24	-1.4017	0 6690	2.8424
0.25	-1.3948	0.6974	2.8493
0.26	-1.3877	0.7260	2.8565
0.27	-1.3803	0.7546	2.8638
0.28	-1.3726	0.7833	2.8715
0.29	-1.3646	0.8120	2.8793
0.30	-1.3564	0.8408	2.8874
0.31	-1.3478	0.8698	2.8957
0.32	-1.3390	0.8988	2.9043
0.33	-1.3299	0.9278	2.9131
0.34	-1.3204	0.9570	2.9220
0.35	-1.3107	0.9863	2.9313
0.36	-1.3007	1.0156	2.9407
0.37	-1.2904	1.0451	2.9503
0.38	-1.2798	1.0747	2.9601
0.39	-1.2689	1.1043	2.9701
0.40	-1.2577	1.1341	2.9803
0.41	-1.2462	1.1639	2.9906
0.42	-1.2344	1.1939	3.0011
0.43	-1.2223	1.2239	3.0118
0.44	-1.2100	1.2541	3.0227
0.45	-1.1973	1.2844	3.0337
0.46	-1.1843	1.3148	3.0448
0.47	-1.1710	1.3453	3.0561
0.48	-1.1574	1.3759	3.0675
0.49	-1.1435	1.4066	3.0790
0.50	-1.1292	1.4375	3.0906

ξ	Φ	Φ'	Φ''
0.50	-1.1292	1.4375	3.0906
0.51	-1.1147	1.4684	3.1024
0.52	-1.0999	1.4995	3.1142
0.53	-1.0847	1.5307	3.1261
0.54	-1.0693	1.5621	3.1381
0.55	-1.0535	1.5935	3.1502
0.56	-1.0374	1.6251	3.1623
0.57	-1.0210	1.6567	3.1744
0.58	-1.0042	1.6885	3.1866
0.59	-0.9872	1.7205	3.1989
0.60	-0.9698	1.7525	3.2111
0.61	-0.9522	1.7847	3.2233
0.62	-0.9341	1.8170	3.2355
0.63	-0.9158	1.8494	3.2478
0.64	-0.8972	1.8819	3.2599
0.65	-0.8782	1.9146	3.2721
0.66	-0.8589	1.9474	3.2841
0.67	-0.8392	1.9803	3.2961
0.68	-0.8193	2.0133	3.3081
0.69	-0.7990	2.0464	3.3199
0.70	-0.7783	2.0797	3.3316
0.71	-0.7574	2.1131	3.3432
0.72	-0.7361	2.1466	3.3546
0.73	-0.7144	2.1802	3.3659
0.74	-0.6925	2.2139	3.3770
0.75	-0.6702	2.2477	3.3880
0.76	-0.6475	2.2816	3.3987
0.77	-0.6245	2.3157	3.4092
0.78	-0.6012	2.3498	3.4195
0.79	-0.5775	2.3[illegible]	3.4296
0.80	-0.5535	2.4184	3.4394
0.81	-0.5292	2.4529	3.4488
0.82	-0.5045	2.4874	3.4580
0.83	-0.4794	2.5220	3.4669
0.84	-0.4540	2.5567	3.4754
0.85	-0.4283	2.5915	3.4836
0.86	-0.4022	2.6264	3.4914
0.87	-0.3757	2.6613	3.4988
0.88	-0.3490	2.6964	3.5058
0.89	-0.3218	2.7315	3.5123
0.90	-0.2943	2.7666	3.5184
0.91	-0.2665	2.8018	3.5240
0.92	-0.2383	2.8371	3.5292
0.93	-0.2097	2.8724	3.5338
0.94	-0.1808	2.9078	3.5378
0.95	-0.1516	2.9432	3.5413
0.96	-0.1220	2.9786	3.5442
0.97	-0.0920	3.0140	3.5465
0.98	-0.0617	3.0495	3.5482
0.99	-0.0310	3.0850	3.5492
1.00	0.0000	3.1205	3.5503

$\lambda = 0.7$

$\Delta\Pi = 7.6437$

ξ	Φ	Φ'	Φ''
0.00	-1.4753	0.0000	2.6792
0.01	-1.4751	0.0268	2.6794
0.02	-1.4747	0.0536	2.6799
0.03	-1.4741	0.0804	2.6809
0.04	-1.4731	0.1072	2.6823
0.05	-1.4719	0.1340	2.6840
0.06	-1.4704	0.1609	2.6861
0.07	-1.4687	0.1878	2.6886
0.08	-1.4667	0.2147	2.6915
0.09	-1.4644	0.2416	2.6948
0.10	-1.4618	0.2686	2.6985
0.11	-1.4590	0.2956	2.7025
0.12	-1.4559	0.3226	2.7069
0.13	-1.4526	0.3497	2.7117
0.14	-1.4489	0.3769	2.7169
0.15	-1.4450	0.4040	2.7224
0.16	-1.4409	0.4313	2.7283
0.17	-1.4364	0.4586	2.7346
0.18	-1.4317	0.4860	2.7412
0.19	-1.4267	0.5134	2.7482
0.20	-1.4214	0.5410	2.7556
0.21	-1.4159	0.5686	2.7633
0.22	-1.4100	0.5962	2.7714
0.23	-1.4039	0.6240	2.7798
0.24	-1.3976	0.6518	2.7885
0.25	-1.3909	0.6798	2.7976
0.26	-1.3840	0.7078	2.8071
0.27	-1.3768	0.7359	2.8168
0.28	-1.3693	0.7641	2.8269
0.29	-1.3615	0.7924	2.8373
0.30	-1.3534	0.8209	2.8480
0.31	-1.3451	0.8494	2.8591
0.32	-1.3364	0.8780	2.8704
0.33	-1.3275	0.9068	2.8821
0.34	-1.3183	0.9357	2.8940
0.35	-1.3088	0.9647	2.9063
0.36	-1.2990	0.9938	2.9188
0.37	-1.2889	1.0231	2.9316
0.38	-1.2785	1.0525	2.9446
0.39	-1.2679	1.0820	2.9579
0.40	-1.2569	1.1116	2.9715
0.41	-1.2456	1.1414	2.9853
0.42	-1.2341	1.1713	2 9994
0.43	-1.2222	1.2014	3.0136
0.44	-1.2100	1.2316	3.0281
0.45	-1.1976	1.2619	3.0428
0.46	-1.1848	1.2925	3.0577
0.47	-1.1717	1.3231	3.0728
0.48	-1.1583	1.3539	3.0881
0.49	-1.1446	1.3849	3.1036
0.50	-1.1306	1.4160	3.1192

ξ	Φ	Φ'	Φ''
0.50	-1.1306	1.4160	3.1192
0.51	-1.1163	1.4473	3.1349
0.52	-1.1017	1.4787	3.1508
0.53	-1.0867	1.5103	3.1669
0.54	-1.0715	1.5420	3.1830
0.55	-1.0559	1.5739	3.1992
0.56	-1.0400	1.6060	3.2156
0.57	-1.0238	1.6382	3.2320
0.58	-1.0072	1.6706	3.2484
0.59	-0.9904	1.7032	3.2649
0.60	-0.9732	1.7359	3.2815
0.61	-0.9556	1.7688	3.2980
0.62	-0.9378	1.8019	3.3146
0.63	-0.9196	1.8351	3.3312
0.64	-0.9011	1.8685	3.3477
0.65	-0.8822	1.9021	3.3641
0.66	-0.8631	1.9358	3.3806
0.67	-0.8435	1.9697	3.3969
0.68	-0.8237	2.0037	3.4131
0.69	-0.8035	2.0380	3.4292
0.70	-0.7829	2.0723	3.4452
0.71	-0.7620	2.1069	3.4610
0.72	-0.7408	2.1415	3.4766
0.73	-0.7192	2.1764	3.4921
0.74	-0.6972	2.2114	3.5073
0.75	-0.6749	2.2465	3.5223
0.76	-0.6523	2.2818	3.5370
0.77	-0.6293	2.3173	3.5515
0.78	-0.6060	2.3529	3.5656
0.79	-0.5823	2.3886	3.5794
0.80	-0.5582	2.4244	3.5928
0.81	-0.5338	2.4604	3.6059
0.82	-0.5090	2.4966	3.6185
0.83	-0.4838	2.5328	3.6308
0.84	-0.4583	2.5692	3.6425
0.85	-0.4324	2.6057	3.6538
0.86	-0.4062	2.6423	3.6646
0.87	-0.3796	2.6789	3.6749
0.88	-0.3526	2.7157	3.6845
0.89	-0.3253	2.7526	3.6936
0.90	-0.2976	2.7896	3.7021
0.91	-0.2695	2.8267	3.7099
0.92	-0.2410	2.8638	3.7170
0.93	-0.2122	2.9010	3.7234
0.94	-0.1830	2.9383	3.7290
0.95	-0.1535	2.9756	3.7339
0.96	-0.1235	3.0129	3.7379
0.97	-0.0932	3.0503	3.7412
0.98	-0.0625	3.0878	3.7435
0.99	-0.0314	3.1252	3.7449
1.00	0.0000	3.1627	3.7463

$\lambda = 0.80$

$\Delta\Pi = 6.2027$

ξ	Φ	Φ'	Φ''
0.00	-1.4682	0.0000	2.5903
0.01	-1.4681	0.0259	2.5905
0.02	-1.4677	0.0518	2.5913
0.03	-1.4671	0.0777	2.5925
0.04	-1.4662	0.1037	2.5942
0.05	-1.4650	0.1296	2.5964
0.06	-1.4636	0.1556	2.5991
0.07	-1.4619	0.1816	2.6022
0.08	-1.4599	0.2076	2.6059
0.09	-1.4577	0.2337	2.6100
0.10	-1.4553	0.2598	2.6146
0.11	-1.4525	0.2860	2.6197
0.12	-1.4495	0.3122	2.6252
0.13	-1.4463	0.3385	2.6312
0.14	-1.4428	0.3649	2.6377
0.15	-1.4390	0.3913	2.6447
0.16	-1.4349	0.4178	2.6522
0.17	-1.4306	0.4443	2.6601
0.18	-1.4261	0.4710	2.6684
0.19	-1.4212	0.4977	2.6773
0.20	-1.4161	0.5245	2.6865
0.21	-1.4107	0.5514	2.6963
0.22	-1.4051	0.5784	2.7064
0.23	-1.3992	0.6056	2.7171
0.24	-1.3930	0.6328	2.7281
0.25	-1.3865	0.6601	2.7396
0.26	-1.3798	0.6876	2.7516
0.27	-1.3728	0.7152	2.7639
0.28	-1.3655	0.7429	2.7767
0.29	-1.3579	0.7707	2.7899
0.30	-1.3500	0.7987	2.8035
0.31	-1.3419	0.8268	2.8175
0.32	-1.3335	0.8550	2.8319
0.33	-1.3248	0.8834	2.8467
0.34	-1.3158	0.9119	2.8618
0.35	-1.3066	0.9406	2.8774
0.36	-1.2970	0.9695	2.8933
0.37	-1.2872	0.9985	2.9096
0.38	-1.2771	1.0277	2.9262
0.39	-1.2666	1.0570	2.9432
0.40	-1.2559	1.0866	2.9605
0.41	-1.2449	1.1162	2.9781
0.42	-1.2336	1.1461	2.9960
0.43	-1.2220	1.1762	3.0143
0.44	-1.2101	1.2064	3.0328
0.45	-1.1979	1.2368	3.0516
0.46	-1.1853	1.2674	3.0707
0.47	-1.1725	1.2982	3.0901
0.48	-1.1594	1.3292	3.1097
0.49	-1.1459	1.3604	3.1295
0.50	-1.1322	1.3918	3.1496

ξ	Φ	Φ'	Φ''
0.50	-1.1322	1.3918	3.1496
0.51	-1.1181	1.4234	3.1699
0.52	-1.1037	1.4552	3.1903
0.53	-1.0890	1.4872	3.2110
0.54	-1.0740	1.5195	3.2318
0.55	-1.0586	1.5519	3.2527
0.56	-1.0429	1.5845	3.2738
0.57	-1.0269	1.6174	3.2950
0.58	-1.0106	1.6504	3.3163
0.59	-0.9939	1.6837	3.3377
0.60	-0.9769	1.7172	3.3592
0.61	-0.9596	1.7509	3.3807
0.62	-0.9419	1.7848	3.4022
0.63	-0.9239	1.8189	3.4237
0.64	-0.9055	1.8533	3.4452
0.65	-0.8868	1.8878	3.4666
0.66	-0.8677	1.9226	3.4880
0.67	-0.8483	1.9576	3.5093
0.68	-0.8286	1.9928	3.5305
0.69	-0.8085	2.0282	3.5516
0.70	-0.7880	2.0638	3.5725
0.71	-0.7672	2.0996	3.5932
0.72	-0.7460	2.1357	3.6137
0.73	-0.7245	2.1719	3.6340
0.74	-0.7026	2.2083	3.6540
0.75	-0.6803	2.2450	3.6737
0.76	-0.6577	2.2818	3.6930
0.77	-0.6347	2.3188	3.7121
0.78	-0.6113	2.3561	3.7307
0.79	-0.5876	2.3934	3.7489
0.80	-0.5635	2.4310	3.7667
0.81	-0.5390	2.4688	3.7840
0.82	-0.5141	2.5067	3.8007
0.83	-0.4888	2.5448	3.8169
0.84	-0.4632	2.5830	3.8325
0.85	-0.4372	2.6214	3.8475
0.86	-0.4108	2.6600	3.8618
0.87	-0.3840	2.6987	3.8755
0.88	-0.3568	2.7375	3.8883
0.89	-0.3292	2.7764	3.9004
0.90	-0.3012	2.8155	3.9117
0.91	-0.2729	2.8547	3.9221
0.92	-0.2442	2.8939	3.9316
0.93	-0.2150	2.9333	3.9402
0.94	-0.1855	2.9727	3.9477
0.95	-0.1556	3.0122	3.9543
0.96	-0.1252	3.0518	3.9597
0.97	-0.0945	3.0914	3.9640
0.98	-0.0634	3.1311	3.9672
0.99	-0.0319	3.1708	3.9691
1.00	0.0000	3.2105	3.9710

$\lambda = 0.90$

$\Delta\Pi = 5.2123$

ξ	Φ	Φ'	Φ''
0.00	-1.4606	0.0000	2.4943
0.01	-1.4604	0.0249	2.4946
0.02	-1.4601	0.0499	2.4955
0.03	-1.4594	0.0749	2.4970
0.04	-1.4586	0.0998	2.4991
0.05	-1.4574	0.1248	2.5017
0.06	-1.4561	0.1499	2.5049
0.07	-1.4545	0.1749	2.5088
0.08	-1.4526	0.2001	2.5132
0.09	-1.4504	0.2252	2.5182
0.10	-1.4481	0.2504	2.5238
0.11	-1.4454	0.2757	2.5299
0.12	-1.4426	0.3010	2.5367
0.13	-1.4394	0.3264	2.5440
0.14	-1.4360	0.3519	2.5519
0.15	-1.4324	0.3775	2.5604
0.16	-1.4285	0.4031	2.5694
0.17	-1.4243	0.4289	2.5790
0.18	-1.4199	0.4547	2.5892
0.19	-1.4152	0.4806	2.6000
0.20	-1.4103	0.5067	2.6113
0.21	-1.4051	0.5329	2.6231
0.22	-1.3996	0.5592	2.6355
0.23	-1.3939	0.5856	2.6485
0.24	-1.3879	0.6121	2.6620
0.25	-1.3817	0.6388	2.6760
0.26	-1.3751	0.6657	2.6906
0.27	-1.3684	0.6926	2.7056
0.28	-1.3613	0.7198	2.7213
0.29	-1.3540	0.7471	2.7374
0.30	-1.3464	0.7745	2.7540
0.31	-1.3385	0.8022	2.7712
0.32	-1.3303	0.8300	2.7888
0.33	-1.3219	0.8579	2.8069
0.34	-1.3131	0.8861	2.8255
0.35	-1.3041	0.9144	2.8446
0.36	-1.2949	0.9430	2.8642
0.37	-1.2853	0.9717	2.8842
0.38	-1.2754	1.0007	2.9046
0.39	-1.2653	1.0298	2.9255
0.40	-1.2548	1.0592	2.9469
0.41	-1.2441	1.0888	2.9686
0.42	-1.2331	1.1186	2.9907
0.43	-1.2217	1.1486	3.0133
0.44	-1.2101	1.1788	3.0362
0.45	-1.1981	1.2093	3.0595
0.46	-1.1859	1.2400	3.0831
0.47	-1.1733	1.2710	3.1071
0.48	-1.1605	1.3022	3.1314
0.49	-1.1473	1.3336	3.1561
0.50	-1.1338	1.3653	3.1810

ξ	Φ	Φ'	Φ''
0.50	-1.1338	1.3653	3.1810
0.51	-1.1200	1.3972	3.2062
0.52	-1.1059	1.4294	3.2317
0.53	-1.0914	1.4619	3.2574
0.54	-1.0766	1.4946	3.2834
0.55	-1.0615	1.5275	3.3095
0.56	-1.0461	1.5608	3.3359
0.57	-1.0303	1.5942	3.3624
0.58	-1.0142	1.6280	3.3891
0.59	-0.9977	1.6620	3.4159
0.60	-0.9809	1.6963	3.4428
0.61	-0.9638	1.7309	3.4698
0.62	-0.9463	1.7657	3.4969
0.63	-0.9285	1.8008	3.5239
0.64	-0.9103	1.8362	3.5510
0.65	-0.8918	1.8718	3.5781
0.66	-0.8729	1.9078	3.6051
0.67	-0.8536	1.9439	3.6320
0.68	-0.8340	1.9804	3.6588
0.69	-0.8140	2.0171	3.6855
0.70	-0.7937	2.0541	3.7120
0.71	-0.7729	2.0914	3.7383
0.72	-0.7518	2.1289	3.7644
0.73	-0.7303	2.1666	3.7901
0.74	-0.7085	2.2047	3.8156
0.75	-0.6863	2.2430	3.8407
0.76	-0.6636	2.2815	3.8655
0.77	-0.6406	2.3203	3.8898
0.78	-0.6172	2.3593	3.9136
0.79	-0.5934	2.3985	3.9369
0.80	-0.5693	2.4380	3.9597
0.81	-0.5447	2.4777	3.9818
0.82	-0.5197	2.5176	4.0034
0.83	-0.4943	2.5578	4.0242
0.84	-0.4685	2.5981	4.0443
0.85	-0.4424	2.6387	4.0636
0.86	-0.4158	2.6794	4.0821
0.87	-0.3888	2.7203	4.0997
0.88	-0.3614	2.7614	4.1163
0.89	-0.3335	2.8026	4.1320
0.90	-0.3053	2.8440	4.1466
0.91	-0.2767	2.8856	4.1601
0.92	-0.2476	2.9272	4.1724
0.93	-0.2181	2.9690	4.1835
0.94	-0.1882	3.0109	4.1933
0.95	-0.1579	3.0529	4.2018
0.96	-0.1272	3.0949	4.2089
0.97	-0.0960	3.1370	4.2145
0.98	-0.0644	3.1792	4.2186
0.99	-0.0324	3.2214	4.2211
1.00	0.0000	3.2636	4.2236

$\lambda = 1.0$

$\Delta\Pi = 4.5016$

ξ	Φ	Φ'	Φ''
0.00	-1.4523	0.0000	2.3926
0.01	-1.4522	0.0239	2.3930
0.02	-1.4519	0.0479	2.3940
0.03	-1.4513	0.0718	2.3958
0.04	-1.4504	0.0958	2.3982
0.05	-1.4493	0.1198	2.4013
0.06	-1.4480	0.1438	2.4051
0.07	-1.4465	0.1679	2.4097
0.08	-1.4447	0.1920	2.4149
0.09	-1.4426	0.2162	2.4208
0.10	-1.4403	0.2404	2.4273
0.11	-1.4378	0.2647	2.4346
0.12	-1.4350	0.2891	2.4426
0.13	-1.4320	0.3136	2.4512
0.14	-1.4288	0.3381	2.4605
0.15	-1.4253	0.3628	2.4705
0.16	-1.4215	0.3876	2.4812
0.17	-1.4175	0.4124	2.4926
0.18	-1.4133	0.4374	2.5046
0.19	-1.4088	0.4625	2.5173
0.20	-1.4040	0.4878	2.5307
0.21	-1.3990	0.5131	2.5447
0.22	-1.3938	0.5387	2.5594
0.23	-1.3882	0.5643	2.5747
0.24	-1.3825	0.5902	2.5907
0.25	-1.3764	0.6162	2.6073
0.26	-1.3701	0.6423	2.6246
0.27	-1.3636	0.6686	2.6425
0.28	-1.3568	0.6952	2.6611
0.29	-1.3497	0.7219	2.6803
0.30	-1.3423	0.7488	2.7001
0.31	-1.3347	0.7759	2.7205
0.32	-1.3268	0.8032	2.7415
0.33	-1.3187	0.8307	2.7631
0.34	-1.3102	0.8585	2.7853
0.35	-1.3015	0.8864	2.8081
0.36	-1.2925	0.9146	2.8314
0.37	-1.2832	0.9430	2.8554
0.38	-1.2736	0.9717	2.8798
0.39	-1.2638	1.0006	2.9049
0.40	-1.2536	1.0298	2.9304
0.41	-1.2432	1.0593	2.9565
0.42	-1.2324	1.0890	2.9831
0.43	-1.2214	1.1189	3.0102
0.44	-1.2100	1.1492	3.0377
0.45	-1.1984	1.1797	3.0658
0.46	-1.1864	1.2105	3.0943
0.47	-1.1742	1.2416	3.1232
0.48	-1.1616	1.2729	3.1526
0.49	-1.1487	1.3046	3.1824
0.50	-1.1355	1.3366	3.2125

ξ	Φ	Φ'	Φ''
0.50	-1.1355	1.3366	3.2125
0.51	-1.1220	1.3689	3.2431
0.52	-1.1081	1.4015	3.2739
0.53	-1.0940	1.4344	3.3052
0.54	-1.0795	1.4676	3.3367
0.55	-1.0646	1.5011	3.3685
0.56	-1.0494	1.5349	3.4006
0.57	-1.0339	1.5691	3.4329
0.58	-1.0181	1.6036	3.4655
0.59	-1.0018	1.6384	3.4982
0.60	-0.9853	1.6736	3.5311
0.61	-0.9684	1.7090	3.5642
0.62	-0.9511	1.7448	3.5973
0.63	-0.9335	1.7810	3.6305
0.64	-0.9155	1.8175	3.6638
0.65	-0.8971	1.8543	3.6971
0.66	-0.8784	1.8914	3.7303
0.67	-0.8593	1.9289	3.7635
0.68	-0.8398	1.9667	3.7966
0.69	-0.8200	2.0048	3.8295
0.70	-0.7997	2.0433	3.8623
0.71	-0.7791	2.0820	3.8949
0.72	-0.7581	2.1212	3.9272
0.73	-0.7367	2.1606	3.9592
0.74	-0.7149	2.2003	3.9908
0.75	-0.6927	2.2404	4.0221
0.76	-0.6701	2.2808	4.0529
0.77	-0.6471	2.3215	4.0832
0.78	-0.6236	2.3624	4.1129
0.79	-0.5998	2.4037	4.1420
0.80	-0.5756	2.4453	4.1705
0.81	-0.5509	2.4871	4.1983
0.82	-0.5258	2.5292	4.2253
0.83	-0.5003	2.5716	4.2515
0.84	-0.4744	2.6143	4.2767
0.85	-0.4480	2.6571	4.3010
0.86	-0.4212	2.7003	4.3243
0.87	-0.3940	2.7436	4.3465
0.88	-0.3664	2.7872	4.3675
0.89	-0.3383	2.8310	4.3873
0.90	-0.3098	2.8749	4.4058
0.91	-0.2808	2.9191	4.4229
0.92	-0.2514	2.9634	4.4385
0.93	-0.2215	3.0078	4.4526
0.94	-0.1912	3.0524	4.4651
0.95	-0.1605	3.0971	4.4759
0.96	-0.1293	3.1419	4.4849
0.97	-0.0976	3.1868	4.4921
0.98	-0.0655	3.2318	4.4973
0.99	-0.0330	3.2768	4.5005
1.00	0.0000	3.3218	4.5037

$\lambda = 1.10$

$\Delta\Pi = 3.9735$

ξ	Φ	Φ'	Φ''
0.00	-1.4436	0.0000	2.2866
0.01	-1.4435	0.0229	2.2870
0.02	-1.4432	0.0457	2.2882
0.03	-1.4426	0.0686	2.2902
0.04	-1.4418	0.0916	2.2930
0.05	-1.4408	0.1145	2.2966
0.06	-1.4395	0.1375	2.3010
0.07	-1.4380	0.1605	2.3062
0.08	-1.4363	0.1836	2.3121
0.09	-1.4343	0.2068	2.3189
0.10	-1.4322	0.2300	2.3265
0.11	-1.4297	0.2533	2.3349
0.12	-1.4271	0.2767	2.3440
0.13	-1.4242	0.3002	2.3540
0.14	-1.4211	0.3238	2.3647
0.15	-1.4177	0.3475	2.3762
0.16	-1.4141	0.3713	2.3886
0.17	-1.4103	0.3953	2.4017
0.18	-1.4062	0.4193	2.4155
0.19	-1.4019	0.4436	2.4302
0.20	-1.3974	0.4680	2.4456
0.21	-1.3926	0.4925	2.4618
0.22	-1.3875	0.5172	2.4788
0.23	-1.3822	0.5421	2.4966
0.24	-1.3767	0.5671	2.5151
0.25	-1.3709	0.5924	2.5344
0.26	-1.3648	0.6178	2.5544
0.27	-1.3585	0.6435	2.5752
0.28	-1.3520	0.6693	2.5967
0.29	-1.3451	0.6954	2.6190
0.30	-1.3380	0.7217	2.6420
0.31	-1.3307	0.7483	2.6657
0.32	-1.3231	0.7750	2.6902
0.33	-1.3152	0.8021	2.7153
0.34	-1.3070	0.8293	2.7412
0.35	-1.2986	0.8569	2.7678
0.36	-1.2899	0.8847	2.7951
0.37	-1.2809	0.9128	2.8230
0.38	-1.2716	0.9412	2.8517
0.39	-1.2621	0.9698	2.8810
0.40	-1.2522	0.9988	2.9109
0.41	-1.2421	1.0280	2.9415
0.42	-1.2317	1.0576	2.9727
0.43	-1.2210	1.0875	3.0045
0.44	-1.2099	1.1177	3.0370
0.45	-1.1986	1.1482	3.0700
0.46	-1.1870	1.1791	3.1036
0.47	-1.1750	1.2103	3.1377
0.48	-1.1628	1.2419	3.1724
0.49	-1.1502	1.2738	3.2076
0.50	-1.1373	1.3060	3.2433

ξ	Φ	Φ'	Φ''
0.50	-1.1373	1.3060	3.2433
0.51	-1.1241	1.3386	3.2795
0.52	-1.1105	1.3716	3.3161
0.53	-1.0966	1.4050	3.3532
0.54	-1.0824	1.4387	3.3907
0.55	-1.0679	1.4728	3.4285
0.56	-1.0530	1.5073	3.4668
0.57	-1.0377	1.5421	3.5053
0.58	-1.0221	1.5774	3.5442
0.59	-1.0062	1.6130	3.5833
0.60	-0.9899	1.6490	3.6227
0.61	-0.9732	1.6855	3.6623
0.62	-0.9562	1.7223	3.7021
0.63	-0.9387	1.7595	3.7420
0.64	-0.9210	1.7971	3.7820
0.65	-0.9028	1.8351	3.8221
0.66	-0.8843	1.8736	3.8622
0.67	-0.8653	1.9124	3.9023
0.68	-0.8460	1.9516	3.9423
0.69	-0.8263	1.9912	3.9821
0.70	-0.8062	2.0312	4.0219
0.71	-0.7857	2.0717	4.0614
0.72	-0.7648	2.1125	4.1006
0.73	-0.7434	2.1537	4.1395
0.74	-0.7217	2.1953	4.1781
0.75	-0.6995	2.2372	4.2162
0.76	-0.6769	2.2796	4.2538
0.77	-0.6539	2.3223	4.2908
0.78	-0.6305	2.3654	4.3272
0.79	-0.6066	2.4088	4.3629
0.80	-0.5823	2.4527	4.3979
0.81	-0.5576	2.4968	4.4320
0.82	-0.5324	2.5413	4.4652
0.83	-0.5067	2.5861	4.4975
0.84	-0.4807	2.6312	4.5286
0.85	-0.4541	2.6767	4.5586
0.86	-0.4271	2.7224	4.5874
0.87	-0.3997	2.7684	4.6148
0.88	-0.3718	2.8147	4.6409
0.89	-0.3434	2.8612	4.6654
0.90	-0.3145	2.9080	4.6884
0.91	-0.2852	2.9550	4.7096
0.92	-0.2554	3.0022	4.7291
0.93	-0.2252	3.0495	4.7467
0.94	-0.1944	3.0971	4.7623
0.95	-0.1632	3.1448	4.7757
0.96	-0.1315	3.1926	4.7870
0.97	-0.0994	3.2405	4.7960
0.98	-0.0667	3.2885	4.8025
0.99	-0.0336	3.3366	4.8065
1.00	0.0000	3.3846	4.8105

$\lambda = 1.20$

$\Delta\Pi = 3.5697$

ξ	Φ	Φ'	Φ''
0.00	-1.4345	0.0000	2.1775
0.01	-1.4344	0.0218	2.1779
0.02	-1.4341	0.0436	2.1793
0.03	-1.4335	0.0654	2.1815
0.04	-1.4328	0.0872	2.1847
0.05	-1.4318	0.1091	2.1887
0.06	-1.4306	0.1310	2.1937
0.07	-1.4292	0.1529	2.1995
0.08	-1.4275	0.1750	2.2063
0.09	-1.4257	0.1971	2.2139
0.10	-1.4236	0.2193	2.2225
0.11	-1.4213	0.2415	2.2319
0.12	-1.4188	0.2639	2.2422
0.13	-1.4160	0.2864	2.2535
0.14	-1.4130	0.3090	2.2656
0.15	-1.4098	0.3317	2.2786
0.16	-1.4064	0.3545	2.2925
0.17	-1.4027	0.3775	2.3073
0.18	-1.3989	0.4007	2.3230
0.19	-1.3947	0.4240	2.3396
0.20	-1.3904	0.4475	2.3571
0.21	-1.3858	0.4712	2.3755
0.22	-1.3809	0.4950	2.3947
0.23	-1.3759	0.5191	2.4148
0.24	-1.3706	0.5433	2.4359
0.25	-1.3650	0.5678	2.4577
0.26	-1.3592	0.5925	2.4805
0.27	-1.3532	0.6174	2.5041
0.28	-1.3469	0.6426	2.5286
0.29	-1.3403	0.6680	2.5540
0.30	-1.3335	0.6936	2.5802
0.31	-1.3264	0.7196	2.6072
0.32	-1.3191	0.7458	2.6352
0.33	-1.3115	0.7723	2.6639
0.34	-1.3037	0.7991	2.6935
0.35	-1.2955	0.8262	2.7239
0.36	-1.2871	0.8536	2.7552
0.37	-1.2785	0.8813	2.7872
0.38	-1.2695	0.9093	2.8200
0.39	-1.2603	0.9377	2.8537
0.40	-1.2508	0.9664	2.8881
0.41	-1.2410	0.9954	2.9233
0.42	-1.2309	1.0249	2.9593
0.43	-1.2205	1.0546	2.9960
0.44	-1.2098	1.0848	3.0334
0.45	-1.1988	1.1153	3.0715
0.46	-1.1875	1.1462	3.1104
0.47	-1.1758	1.1775	3.1499
0.48	-1.1639	1.2092	3.1901
0.49	-1.1517	1.2413	3.2310
0.50	-1.1391	1.2738	3.2725

ξ	Φ	Φ'	Φ''
0.50	-1.1391	1.2738	3.2725
0.51	-1.1262	1.3068	3.3146
0.52	-1.1129	1.3401	3.3572
0.53	-1.0994	1.3739	3.4005
0.54	-1.0855	1.4081	3.4442
0.55	-1.0712	1.4428	3.4885
0.56	-1.0566	1.4779	3.5332
0.57	-1.0417	1.5135	3.5784
0.58	-1.0263	1.5495	3.6240
0.59	-1.0107	1.5860	3.6700
0.60	-0.9946	1.6229	3.7163
0.61	-0.9782	1.6603	3.7630
0.62	-0.9614	1.6981	3.8098
0.63	-0.9442	1.7365	3.8570
0.64	-0.9267	1.7753	3.9043
0.65	-0.9087	1.8146	3.9517
0.66	-0.8904	1.8543	3.9992
0.67	-0.8717	1.8945	4.0468
0.68	-0.8525	1.9353	4.0943
0.69	-0.8329	1.9764	4.1418
0.70	-0.8130	2.0181	4.1891
0.71	-0.7926	2.0602	4.2362
0.72	-0.7718	2.1028	4.2831
0.73	-0.7505	2.1459	4.3297
0.74	-0.7289	2.1894	4.3758
0.75	-0.7067	2.2334	4.4215
0.76	-0.6842	2.2778	4.4667
0.77	-0.6612	2.3227	4.5113
0.78	-0.6377	2.3681	4.5551
0.79	-0.6138	2.4138	4.5982
0.80	-0.5895	2.4600	4.6404
0.81	-0.5646	2.5066	4.6817
0.82	-0.5393	2.5536	4.7219
0.83	-0.5136	2.6011	4.7609
0.84	-0.4873	2.6489	4.7987
0.85	-0.4606	2.6970	4.8352
0.86	-0.4334	2.7455	4.8702
0.87	-0.4057	2.7944	4.9037
0.88	-0.3775	2.8436	4.9354
0.89	-0.3488	2.8931	4.9654
0.90	-0.3196	2.9429	4.9935
0.91	-0.2899	2.9930	5.0195
0.92	-0.2598	3.0433	5.0434
0.93	-0.2291	3.0938	5.0649
0.94	-0.1979	3.1446	5.0841
0.95	-0.1662	3.1955	5.1007
0.96	-0.1340	3.2466	5.1146
0.97	-0.1012	3.2978	5.1257
0.98	-0.0680	3.3491	5.1337
0.99	-0.0343	3.4004	5.1387
1.00	0.0000	3.4518	5.1436

$\lambda = 1.30$

$\Delta\Pi = 3.2534$

ξ	Φ	Φ'	Φ''
0.00	-1.4251	0.0000	2.0666
0.01	-1.4250	0.0207	2.0671
0.02	-1.4247	0.0413	2.0686
0.03	-1.4242	0.0620	2.0711
0.04	-1.4234	0.0828	2.0746
0.05	-1.4225	0.1035	2.0790
0.06	-1.4214	0.1244	2.0845
0.07	-1.4200	0.1452	2.0910
0.08	-1.4185	0.1662	2.0985
0.09	-1.4167	0.1872	2.1069
0.10	-1.4147	0.2083	2.1164
0.11	-1.4125	0.2295	2.1269
0.12	-1.4101	0.2509	2.1383
0.13	-1.4075	0.2723	2.1508
0.14	-1.4047	0.2939	2.1642
0.15	-1.4016	0.3156	2.1787
0.16	-1.3984	0.3375	2.1941
0.17	-1.3949	0.3595	2.2106
0.18	-1.3912	0.3817	2.2280
0.19	-1.3873	0.4041	2.2465
0.20	-1.3831	0.4266	2.2659
0.21	-1.3787	0.4494	2.2864
0.22	-1.3741	0.4724	2.3078
0.23	-1.3693	0.4955	2.3303
0.24	-1.3642	0.5190	2.3537
0.25	-1.3589	0.5426	2.3781
0.26	-1.3534	0.5665	2.4035
0.27	-1.3476	0.5907	2.4299
0.28	-1.3415	0.6151	2.4573
0.29	-1.3353	0.6398	2.4857
0.30	-1.3287	0.6649	2.5151
0.31	-1.3220	0.6902	2.5455
0.32	-1.3149	0.7158	2.5768
0.33	-1.3077	0.7417	2.6091
0.34	-1.3001	0.7680	2.6423
0.35	-1.2923	0.7945	2.6766
0.36	-1.2842	0.8215	2.7118
0.37	-1.2759	0.8488	2.7479
0.38	-1.2672	0.8765	2.7850
0.39	-1.2583	0.9045	2.8230
0.40	-1.2492	0.9329	2.8619
0.41	-1.2397	0.9617	2.9018
0.42	-1.2299	0.9910	2.9425
0.43	-1.2199	1.0206	2.9841
0.44	-1.2095	1.0506	3.0267
0.45	-1.1988	1.0811	3.0700
0.46	-1.1879	1.1120	3.1143
0.47	-1.1766	1.1434	3.1593
0.48	-1.1650	1.1752	3.2052
0.49	-1.1531	1.2075	3.2519
0.50	-1.1409	1.2403	3.2993

ξ	Φ	Φ'	Φ''
0.50	-1.1409	1.2403	3.2993
0.51	-1.1283	1.2735	3.3475
0.52	-1.1154	1.3072	3.3965
0.53	-1.1022	1.3414	3.4461
0.54	-1.0886	1.3762	3.4964
0.55	-1.0746	1.4114	3.5473
0.56	-1.0603	1.4471	3.5989
0.57	-1.0457	1.4834	3.6510
0.58	-1.0307	1.5201	3.7037
0.59	-1.0153	1.5574	3.7569
0.60	-0.9995	1.5953	3.8106
0.61	-0.9834	1.6337	3.8647
0.62	-0.9669	1.6726	3.9192
0.63	-0.9499	1.7120	3.9740
0.64	-0.9326	1.7521	4.0291
0.65	-0.9149	1.7926	4.0844
0.66	-0.8968	1.8337	4.1399
0.67	-0.8782	1.8754	4.1956
0.68	-0.8592	1.9177	4.2512
0.69	-0.8399	1.9604	4.3069
0.70	-0.8200	2.0038	4.3625
0.71	-0.7998	2.0477	4.4179
0.72	-0.7791	2.0921	4.4732
0.73	-0.7579	2.1372	4.5281
0.74	-0.7363	2.1827	4.5826
0.75	-0.7143	2.2288	4.6367
0.76	-0.6918	2.2754	4.6902
0.77	-0.6688	2.3226	4.7430
0.78	-0.6453	2.3703	4.7951
0.79	-0.6214	2.4185	4.8463
0.80	-0.5969	2.4672	4.8966
0.81	-0.5720	2.5164	4.9458
0.82	-0.5466	2.5661	4.9939
0.83	-0.5207	2.6163	5.0406
0.84	-0.4943	2.6669	5.0859
0.85	-0.4674	2.7180	5.1296
0.86	-0.4399	2.7695	5.1717
0.87	-0.4120	2.8214	5.2119
0.88	-0.3835	2.8737	5.2501
0.89	-0.3545	2.9264	5.2863
0.90	-0.3250	2.9795	5.3202
0.91	-0.2949	3.0328	5.3516
0.92	-0.2643	3.0865	5.3805
0.93	-0.2332	3.1404	5.4067
0.94	-0.2015	3.1946	5.4299
0.95	-0.1693	3.2490	5.4501
0.96	-0.1365	3.3036	5.4670
0.97	-0.1032	3.3583	5.4804
0.98	-0.0694	3.4132	5.4903
0.99	-0.0350	3.4681	5.4963
1.00	0.0000	3.5231	5.5024

$\lambda = 1.40$

$\Delta\Pi = 3.0007$

ξ	Φ	Φ'	Φ''
0.00	-1.4155	0.0000	1.9550
0.01	-1.4154	0.0196	1.9556
0.02	-1.4151	0.0391	1.9572
0.03	-1.4146	0.0587	1.9599
0.04	-1.4139	0.0783	1.9637
0.05	-1.4130	0.0980	1.9686
0.06	-1.4119	0.1177	1.9746
0.07	-1.4107	0.1375	1.9816
0.08	-1.4092	0.1573	1.9898
0.09	-1.4075	0.1773	1.9990
0.10	-1.4056	0.1973	2.0093
0.11	-1.4036	0.2175	2.0208
0.12	-1.4013	0.2377	2.0333
0.13	-1.3988	0.2581	2.0469
0.14	-1.3961	0.2787	2.0616
0.15	-1.3932	0.2994	2.0774
0.16	-1.3901	0.3202	2.0943
0.17	-1.3868	0.3413	2.1123
0.18	-1.3833	0.3625	2.1314
0.19	-1.3796	0.3839	2.1516
0.20	-1.3756	0.4055	2.1729
0.21	-1.3715	0.4274	2.1954
0.22	-1.3671	0.4494	2.2189
0.23	-1.3625	0.4718	2.2435
0.24	-1.3577	0.4943	2.2693
0.25	-1.3526	0.5171	2.2962
0.26	-1.3473	0.5402	2.3241
0.27	-1.3418	0.5636	2.3532
0.28	-1.3360	0.5873	2.3834
0.29	-1.3300	0.6113	2.4147
0.30	-1.3238	0.6356	2.4472
0.31	-1.3173	0.6603	2.4807
0.32	-1.3106	0.6852	2.5154
0.33	-1.3036	0.7106	2.5511
0.34	-1.2964	0.7363	2.5880
0.35	-1.2889	0.7623	2.6260
0.36	-1.2811	0.7888	2.6650
0.37	-1.2731	0.8156	2.7052
0.38	-1.2648	0.8429	2.7465
0.39	-1.2563	0.8706	2.7888
0.40	-1.2474	0.8987	2.8322
0.41	-1.2383	0.9272	2.8767
0.42	-1.2289	0.9562	2.9222
0.43	-1.2192	0.9857	2.9688
0.44	-1.2092	1.0156	3.0164
0.45	-1.1989	1.0460	3.0651
0.46	-1.1882	1.0769	3.1147
0.47	-1.1773	1.1083	3.1654
0.48	-1.1661	1.1402	3.2170
0.49	-1.1545	1.1727	3.2696
0.50	-1.1426	1.2056	3.3232

ξ	Φ	Φ'	Φ''
0.50	-1.1426	1.2056	3.3232
0.51	-1.1304	1.2391	3.3776
0.52	-1.1178	1.2732	3.4330
0.53	-1.1049	1.3078	3.4892
0.54	-1.0917	1.3430	3.5463
0.55	-1.0781	1.3787	3.6041
0.56	-1.0641	1.4150	3.6628
0.57	-1.0498	1.4520	3.7222
0.58	-1.0351	1.4895	3.7823
0.59	-1.0200	1.5276	3.8430
0.60	-1.0045	1.5664	3.9044
0.61	-0.9887	1.6057	3.9663
0.62	-0.9724	1.6457	4.0288
0.63	-0.9557	1.6863	4.0918
0.64	-0.9387	1.7275	4.1552
0.65	-0.9212	1.7694	4.2189
0.66	-0.9033	1.8119	4.2829
0.67	-0.8850	1.8551	4.3472
0.68	-0.8662	1.8988	4.4116
0.69	-0.8470	1.9433	4.4761
0.70	-0.8273	1.9884	4.5406
0.71	-0.8072	2.0341	4.6050
0.72	-0.7866	2.0805	4.6692
0.73	-0.7656	2.1275	4.7332
0.74	-0.7441	2.1751	4.7969
0.75	-0.7221	2.2234	4.8601
0.76	-0.6996	2.2723	4.9227
0.77	-0.6767	2.3219	4.9846
0.78	-0.6532	2.3720	5.0458
0.79	-0.6292	2.4228	5.1060
0.80	-0.6047	2.4741	5.1652
0.81	-0.5797	2.5261	5.2232
0.82	-0.5542	2.5786	5.2799
0.83	-0.5282	2.6317	5.3352
0.84	-0.5016	2.6853	5.3888
0.85	-0.4745	2.7394	5.4407
0.86	-0.4468	2.7941	5.4906
0.87	-0.4186	2.8492	5.5384
0.88	-0.3898	2.9048	5.5840
0.89	-0.3605	2.9609	5.6271
0.90	-0.3306	3.0174	5.6675
0.91	-0.3001	3.0742	5.7052
0.92	-0.2691	3.1315	5.7398
0.93	-0.2375	3.1890	5.7711
0.94	-0.2053	3.2469	5.7990
0.95	-0.1726	3.3050	5.8232
0.96	-0.1392	3.3633	5.8436
0.97	-0.1053	3.4218	5.8598
0.98	-0.0708	3.4805	5.8716
0.99	-0.0357	3.5392	5.8789
1.00	0.0000	3.5980	5.8862

$\lambda = 1.50$

$\Delta\Pi = 2.7951$

ξ	Φ	Φ'	Φ''
0.00	-1.4056	0.0000	1.8438
0.01	-1.4056	0.0184	1.8444
0.02	-1.4053	0.0369	1.8462
0.03	-1.4048	0.0554	1.8491
0.04	-1.4042	0.0739	1.8532
0.05	-1.4033	0.0924	1.8584
0.06	-1.4023	0.1111	1.8648
0.07	-1.4011	0.1297	1.8724
0.08	-1.3997	0.1485	1.8812
0.09	-1.3981	0.1674	1.8912
0.10	-1.3964	0.1863	1.9023
0.11	-1.3944	0.2054	1.9146
0.12	-1.3923	0.2246	1.9281
0.13	-1.3899	0.2440	1.9427
0.14	-1.3874	0.2635	1.9586
0.15	-1.3847	0.2832	1.9756
0.16	-1.3817	0.3030	1.9939
0.17	-1.3786	0.3231	2.0133
0.18	-1.3753	0.3433	2.0340
0.19	-1.3717	0.3637	2.0558
0.20	-1.3680	0.3844	2.0789
0.21	-1.3640	0.4053	2.1032
0.22	-1.3599	0.4265	2.1286
0.23	-1.3555	0.4479	2.1554
0.24	-1.3509	0.4696	2.1833
0.25	-1.3461	0.4916	2.2125
0.26	-1.3411	0.5138	2.2429
0.27	-1.3358	0.5364	2.2745
0.28	-1.3304	0.5593	2.3074
0.29	-1.3247	0.5826	2.3415
0.30	-1.3187	0.6062	2.3768
0.31	-1.3125	0.6301	2.4134
0.32	-1.3061	0.6545	2.4513
0.33	-1.2994	0.6792	2.4904
0.34	-1.2925	0.7043	2.5307
0.35	-1.2854	0.7298	2.5723
0.36	-1.2779	0.7557	2.6151
0.37	-1.2702	0.7821	2.6592
0.38	-1.2623	0.8089	2.7046
0.39	-1.2541	0.8362	2.7511
0.40	-1.2456	0.8639	2.7989
0.41	-1.2368	0.8922	2.8480
0.42	-1.2277	0.9209	2.8983
0.43	-1.2184	0.9501	2.9497
0.44	-1.2087	0.9799	3.0024
0.45	-1.1988	1.0102	3.0563
0.46	-1.1885	1.0410	3.1114
0.47	-1.1780	1.0724	3.1677
0.48	-1.1671	1.1044	3.2251
0.49	-1.1559	1.1369	3.2837
0.50	-1.1443	1.1701	3.3434

ξ	Φ	Φ'	Φ''
0.50	-1.1443	1.1701	3.3434
0.51	-1.1325	1.2038	3.4042
0.52	-1.1203	1.2382	3.4661
0.53	-1.1077	1.2731	3.5290
0.54	-1.0948	1.3088	3.5930
0.55	-1.0815	1.3450	3.6580
0.56	-1.0679	1.3819	3.7239
0.57	-1.0539	1.4195	3.7908
0.58	-1.0395	1.4577	3.8585
0.59	-1.0247	1.4967	3.9271
0.60	-1.0096	1.5363	3.9965
0.61	-0.9940	1.5766	4.0667
0.62	-0.9780	1.6176	4.1376
0.63	-0.9617	1.6594	4.2091
0.64	-0.9449	1.7018	4.2811
0.65	-0.9276	1.7450	4.3537
0.66	-0.9100	1.7889	4.4268
0.67	-0.8918	1.8335	4.5002
0.68	-0.8733	1.8789	4.5739
0.69	-0.8543	1.9250	4.6478
0.70	-0.8348	1.9718	4.7219
0.71	-0.8148	2.0194	4.7959
0.72	-0.7944	2.0678	4.8699
0.73	-0.7735	2.1168	4.9437
0.74	-0.7521	2.1666	5.0172
0.75	-0.7301	2.2172	5.0903
0.76	-0.7077	2.2684	5.1628
0.77	-0.6848	2.3204	5.2347
0.78	-0.6613	2.3731	5.3057
0.79	-0.6373	2.4265	5.3758
0.80	-0.6128	2.4806	5.4448
0.81	-0.5877	2.5354	5.5125
0.82	-0.5621	2.5909	5.5788
0.83	-0.5359	2.6470	5.6435
0.84	-0.5091	2.7037	5.7063
0.85	-0.4818	2.7611	5.7672
0.86	-0.4539	2.8191	5.8259
0.87	-0.4254	2.8776	5.8823
0.88	-0.3963	2.9367	5.9360
0.89	-0.3667	2.9963	5.9869
0.90	-0.3364	3.0564	6.0347
0.91	-0.3056	3.1170	6.0793
0.92	-0.2741	3.1780	6.1203
0.93	-0.2420	3.2394	6.1575
0.94	-0.2093	3.3011	6.1906
0.95	-0.1760	3.3632	6.2195
0.96	-0.1420	3.4255	6.2437
0.97	-0.1075	3.4880	6.2631
0.98	-0.0723	3.5507	6.2773
0.99	-0.0364	3.6135	6.2860
1.00	0.0000	3.6764	6.2947

$\lambda = 1.60$

$\Delta\Pi = 2.6252$

ξ	Φ	Φ'	Φ''
0.00	-1.3957	0.0000	1.7339
0.01	-1.3957	0.0173	1.7345
0.02	-1.3954	0.0347	1.7364
0.03	-1.3950	0.0521	1.7395
0.04	-1.3944	0.0695	1.7438
0.05	-1.3936	0.0870	1.7494
0.06	-1.3926	0.1045	1.7562
0.07	-1.3915	0.1221	1.7643
0.08	-1.3902	0.1398	1.7736
0.09	-1.3887	0.1576	1.7842
0.10	-1.3870	0.1755	1.7961
0.11	-1.3852	0.1935	1.8091
0.12	-1.3832	0.2117	1.8235
0.13	-1.3809	0.2300	1.8391
0.14	-1.3786	0.2484	1.8560
0.15	-1.3760	0.2671	1.8742
0.16	-1.3732	0.2859	1.8937
0.17	-1.3703	0.3050	1 9144
0.18	-1.3671	0.3242	1.9365
0.19	-1.3638	0.3437	1.9598
0.20	-1.3602	0.3634	1.9845
0.21	-1.3565	0.3834	2.0105
0.22	-1.3526	0.4037	2.0378
0.23	-1.3484	0.4242	2.0664
0.24	-1.3441	0.4450	2.0963
0.25	-1.3395	0.4661	2.1276
0.26	-1.3348	0.4875	2.1603
0.27	-1.3298	0.5093	2.1943
0.28	-1.3246	0.5314	2.2296
0.29	-1.3192	0.5539	2.2664
0.30	-1.3135	0.5768	2.3045
0.31	-1.3076	0.6000	2.3440
0.32	-1.3015	0.6237	2.3848
0.33	-1.2951	0.6477	2.4271
0.34	-1.2885	0.6722	2.4708
0.35	-1.2817	0.6971	2.5158
0.36	-1.2746	0.7225	2.5623
0.37	-1.2673	0.7484	2.6101
0.38	-1.2596	0.7747	2.6594
0.39	-1.2518	0.8016	2.7101
0.40	-1.2436	0.8289	2.7621
0.41	-1.2352	0.8568	2.8156
0.42	-1.2265	0.8853	2.8705
0.43	-1.2175	0.9143	2.9268
0.44	-1.2082	0.9438	2.9845
0.45	-1.1986	0.9740	3.0436
0.46	-1.1887	1.0047	3.1041
0.47	-1.1785	1.0360	3.1659
0.48	-1.1680	1.0680	3.2291
0.49	-1.1571	1.1006	3.2936
0.50	-1.1460	1.1339	3.3595

ξ	Φ	Φ'	Φ''
0.50	-1.1460	1.1339	3.3595
0.51	-1.1345	1.1678	3.4267
0.52	-1.1226	1.2024	3.4952
0.53	-1.1104	1.2377	3.5649
0.54	-1.0979	1.2737	3.6359
0.55	-1.0849	1.3105	3.7081
0.56	-1.0716	1.3479	3.7815
0.57	-1.0580	1.3861	3.8560
0.58	-1.0439	1.4250	3.9316
0.59	-1.0295	1.4647	4.0083
0.60	-1.0146	1.5052	4.0860
0.61	-0.9994	1.5465	4.1647
0.62	-0.9837	1.5885	4.2443
0.63	-0.9676	1.6314	4.3247
0.64	-0.9511	1.6750	4.4059
0.65	-0.9341	1.7195	4.4878
0.66	-0.9167	1.7648	4.5703
0.67	-0.8988	1.8109	4.6534
0.68	-0.8805	1.8578	4.7369
0.69	-0.8617	1.9056	4.8208
0.70	-0.8424	1.9542	4.9050
0.71	-0.8226	2.0037	4.9893
0.72	-0.8023	2.0540	5.0737
0.73	-0.7815	2.1052	5.1580
0.74	-0.7602	2.1572	5.2421
0.75	-0.7383	2 2100	5.3259
0.76	-0.7160	2.2637	5.4091
0.77	-0.6931	2.3182	5.4917
0.78	-0.6696	2.3735	5.5735
0.79	-0.6456	2.4297	5.6544
0.80	-0.6210	2.4866	5.7340
0.81	-0.5959	2.5444	5.8124
0.82	-0.5701	2.6029	5.8892
0.83	-0.5438	2.6621	5.9642
0.84	-0.5169	2.7221	6.0373
0.85	-0.4894	2.7829	6.1081
0.86	-0.4612	2.8443	6.1766
0.87	-0.4325	2.9064	6.2423
0.88	-0.4031	2.9691	6.3051
0.89	-0.3731	3.0325	6.3647
0.90	-0.3425	3.0964	6.4208
0.91	-0.3112	3.1609	6.4731
0.92	-0.2792	3.2258	6.5213
0.93	-0.2467	3.2913	6.5651
0.94	-0.2134	3.3571	6.6042
0.95	-0.1795	3.4233	6.6383
0.96	-0.1449	3.4899	6.6669
0.97	-0.1097	3.5566	6.6898
0.98	-0.0738	3.6236	6.7066
0.99	-0.0372	3.6907	6.7170
1.00	0.0000	3.7579	6.7273

$\lambda = 1.70$

$\Delta\Pi = 2.4829$

ξ	Φ	Φ'	Φ''
0.00	-1.3858	0.0000	1.6260
0.01	-1.3857	0.0163	1.6267
0.02	-1.3855	0.0325	1.6287
0.03	-1.3851	0.0488	1.6319
0.04	-1.3845	0.0652	1.6365
0.05	-1.3838	0.0816	1.6423
0.06	-1.3829	0.0980	1.6495
0.07	-1.3818	0.1146	1.6580
0.08	-1.3806	0.1312	1.6678
0.09	-1.3792	0.1479	1.6790
0.10	-1.3776	0.1648	1.6914
0.11	-1.3759	0.1818	1.7052
0.12	-1.3740	0.1989	1.7203
0.13	-1.3719	0.2162	1.7368
0.14	-1.3697	0.2336	1.7546
0.15	-1.3672	0.2513	1.7738
0.16	-1.3646	0.2691	1.7944
0.17	-1.3619	0.2872	1.8163
0.18	-1.3589	0.3055	1.8396
0.19	-1.3558	0.3240	1.8643
0.20	-1.3524	0.3428	1.8904
0.21	-1.3489	0.3618	1.9179
0.22	-1.3452	0.3811	1.9468
0.23	-1.3413	0.4007	1.9772
0.24	-1.3372	0.4207	2.0090
0.25	-1.3329	0.4409	2.0422
0.26	-1.3283	0.4615	2.0769
0.27	-1.3236	0.4825	2.1131
0.28	-1.3187	0.5038	2.1508
0.29	-1.3136	0.5255	2.1899
0.30	-1.3082	0.5476	2.2306
0.31	-1.3026	0.5701	2.2727
0.32	-1.2968	0.5931	2.3164
0.33	-1.2907	0.6164	2.3617
0.34	-1.2845	0.6403	2.4084
0.35	-1.2779	0.6646	2.4568
0.36	-1.2712	0.6894	2.5066
0.37	-1.2641	0.7148	2.5581
0.38	-1.2569	0.7406	2.6111
0.39	-1.2493	0.7670	2.6657
0.40	-1.2415	0.7939	2.7219
0.41	-1.2335	0.8214	2.7797
0.42	-1.2251	0.8495	2.8390
0.43	-1.2165	0.8782	2.9000
0.44	-1.2075	0.9075	2.9625
0.45	-1.1983	0.9375	3.0267
0.46	-1.1888	0.9681	3.0924
0.47	-1.1790	0.9993	3.1597
0.48	-1.1688	1.0313	3.2286
0.49	-1.1583	1.0639	3.2991
0.50	-1.1475	1.0973	3.3711

ξ	Φ	Φ'	Φ''
0.50	-1.1475	1.0973	3.3711
0.51	-1.1366	1.1314	3.4447
0.52	-1.1249	1.1662	3.5197
0.53	-1.1131	1.2018	3.5963
0.54	-1.1009	1.2381	3.6744
0.55	-1.0883	1.2753	3.7539
0.56	-1.0754	1.3132	3.8348
0.57	-1.0620	1.3520	3.9171
0.58	-1.0483	1.3915	4.0008
0.59	-1.0342	1.4320	4.0857
0.60	-1.0197	1.4733	4.1719
0.61	-1.0047	1.5154	4.2594
0.62	-0.9894	1.5585	4.3479
0.63	-0.9736	1.6024	4.4376
0.64	-0.9573	1.6472	4.5282
0.65	-0.9406	1.6930	4.6198
0.66	-0.9235	1.7396	4.7123
0.67	-0.9058	1.7872	4.8055
0.68	-0.8877	1.8357	4.8994
0.69	-0.8691	1.8852	4 9938
0.70	-0.8500	1.9356	5.0887
0.71	-0.8304	1.9870	5.1839
0.72	-0.8103	2.0393	5.2794
0.73	-0.7896	2.0926	5.3749
0.74	-0.7684	2.1468	5.4703
0.75	-0.7467	2.2020	5.5655
0.76	-0.7244	2.2581	5.6603
0.77	-0.7015	2.3152	5.7545
0.78	-0.6781	2.3732	5.8479
0.79	-0.6541	2.4321	5.9404
0.80	-0.6294	2.4920	6.0317
0.81	-0.6042	2.5527	6.1216
0.82	-0.5784	2.6144	6.2098
0.83	-0.5519	2.6769	6.2962
0.84	-0.5248	2.7403	6.3804
0.85	-0.4971	2.8045	6.4623
0.86	-0.4688	2.8695	6.5414
0.87	-0.4397	2.9353	6.6176
0.88	-0 4100	3.0019	6.6904
0.89	-0.3797	3.0691	6.7597
0.90	-0.3487	3.1371	6.8249
0.91	-0.3170	3.2056	6.8859
0.92	-0.2846	3.2748	6.9421
0.93	-0.2515	3.3444	6.9933
0.94	-0.2177	3.4146	7.0391
0.95	-0.1832	3.4852	7.0790
0.96	-0.1480	3.5561	7.1126
0.97	-0.1120	3.6274	7.1395
0.98	-0.0754	3.6989	7.1593
0.99	-0.0381	3.7705	7.1714
1.00	0.0000	3.8423	7.1836

$\lambda = 1.80$

$\Delta\Pi = 2.3623$

ξ	Φ	Φ'	Φ''
0.00	-1.3759	0.0000	1.5209
0.01	-1.3758	0.0152	1.5216
0.02	-1.3756	0.0304	1.5236
0.03	-1.3752	0.0457	1.5270
0.04	-1.3747	0.0610	1.5318
0.05	-1.3740	0.0763	1.5379
0.06	-1.3732	0.0918	1.5454
0.07	-1.3722	0.1072	1.5542
0.08	-1.3710	0.1228	1.5645
0.09	-1.3697	0.1385	1.5761
0.10	-1.3682	0.1544	1.5891
0.11	-1.3666	0.1703	1.6034
0.12	-1.3648	0.1864	1.6192
0.13	-1.3629	0.2027	1.6364
0.14	-1.3608	0.2192	1.6551
0.15	-1.3585	0.2358	1.6751
0.16	-1.3561	0.2527	1.6966
0.17	-1.3534	0.2698	1.7195
0.18	-1.3507	0.2871	1.7439
0.19	-1.3477	0.3047	1.7698
0.20	-1.3446	0.3225	1.7971
0.21	-1.3413	0.3406	1.8260
0.22	-1.3378	0.3590	1.8564
0.23	-1.3341	0.3777	1.8883
0.24	-1.3302	0.3968	1.9217
0.25	-1.3261	0.4162	1.9567
0.26	-1.3219	0.4359	1.9933
0.27	-1.3174	0.4561	2.0314
0.28	-1.3128	0.4766	2.0711
0.29	-1.3079	0.4975	2.1125
0.30	-1.3028	0.5188	2.1555
0.31	-1.2975	0.5406	2.2001
0.32	-1.2920	0.5628	2.2464
0.33	-1.2863	0.5855	2.2944
0.34	-1.2803	0.6087	2.3440
0.35	-1.2741	0.6324	2.3954
0.36	-1.2676	0.6567	2.4485
0.37	-1.2609	0.6814	2.5033
0.38	-1.2540	0.7067	2.5599
0.39	-1.2468	0.7326	2.6182
0.40	-1.2394	0.7591	2.6783
0.41	-1.2316	0.7862	2.7401
0.42	-1.2236	0.8139	2.8038
0.43	-1.2154	0.8423	2.8692
0.44	-1.2068	0.8713	2.9365
0.45	-1.1979	0.9010	3.0055
0.46	-1.1888	0.9314	3.0764
0.47	-1.1793	0.9626	3.1490
0.48	-1.1695	0.9944	3.2235
0.49	-1.1594	1.0270	3.2998
0.50	-1.1490	1.0604	3.3779

ξ	Φ	Φ'	Φ''
0.50	-1.1490	1.0604	3.3779
0.51	-1.1382	1.0946	3.4577
0.52	-1.1271	1.1296	3.5393
0.53	-1.1156	1.1654	3.6227
0.54	-1.1038	1.2020	3.7078
0.55	-1.0916	1.2396	3.7947
0.56	-1.0790	1.2779	3.8832
0.57	-1.0660	1.3172	3.9734
0.58	-1.0526	1.3574	4.0652
0.59	-1.0389	1.3985	4.1585
0.60	-1.0247	1.4406	4.2534
0.61	-1.0100	1.4836	4.3498
0.62	-0.9950	1.5276	4.4476
0.63	-0.9795	1.5726	4.5468
0.64	-0.9635	1.6185	4.6472
0.65	-0.9471	1.6655	4.7489
0.66	-0.9302	1.7135	4.8516
0.67	-0.9129	1.7626	4.9554
0.68	-0.8950	1.8126	5.0601
0.69	-0.8766	1.8638	5.1656
0.70	-0.8577	1.9160	5.2718
0.71	-0.8383	1.9692	5.3785
0.72	-0.8183	2.0235	5.4856
0.73	-0.7978	2.0789	5.5930
0.74	-0.7767	2.1354	5.7005
0.75	-0.7551	2.1929	5.8079
0.76	-0.7329	2.2515	5.9150
0.77	-0.7101	2.3112	6.0216
0.78	-0.6867	2.3720	6.1275
0.79	-0.6626	2.4338	6.2326
0.80	-0.6380	2.4966	6.3364
0.81	-0.6127	2.5605	6.4388
0.82	-0.5868	2.6254	6.5395
0.83	-0.5602	2.6913	6.6383
0.84	-0.5329	2.7581	6.7347
0.85	-0.5050	2.8260	6.8286
0.86	-0.4764	2.8947	6.9195
0.87	-0.4471	2.9643	7.0071
0.88	-0.4171	3.0348	7.0910
0.89	-0.3864	3.1061	7.1709
0.90	-0.3550	3.1782	7.2463
0.91	-0.3229	3.2510	7.3168
0.92	-0.2900	3.3245	7.3821
0.93	-0.2564	3.3986	7.4415
0.94	-0.2220	3.4733	7.4947
0.95	-0.1869	3.5485	7.5411
0.96	-0.1511	3.6241	7.5803
0.97	-0.1144	3.7001	7.6117
0.98	-0.0771	3.7763	7.6348
0.99	-0.0389	3.8527	7.6490
1.00	0.0000	3.9292	7.6633

$\lambda = 1.90$

$\Delta\Pi = 2.2590$

ξ	Φ	Φ'	Φ''
0.00	-1.3660	0.0000	1.4191
0.01	-1.3660	0.0142	1.4198
0.02	-1.3658	0.0284	1.4219
0.03	-1.3654	0.0426	1.4254
0.04	-1.3649	0.0569	1.4303
0.05	-1.3643	0.0713	1.4366
0.06	-1.3635	0.0857	1.4443
0.07	-1.3626	0.1001	1.4535
0.08	-1.3615	0.1147	1.4640
0.09	-1.3603	0.1294	1.4760
0.10	-1.3589	0.1443	1.4895
0.11	-1.3574	0.1592	1.5044
0.12	-1.3557	0.1744	1.5207
0.13	-1.3539	0.1897	1.5385
0.14	-1.3519	0.2051	1.5578
0.15	-1.3498	0.2208	1.5786
0.16	-1.3475	0.2367	1.6008
0.17	-1.3451	0.2528	1.6246
0.18	-1.3424	0.2692	1.6500
0.19	-1.3397	0.2858	1.6768
0.20	-1.3367	0.3028	1.7053
0.21	-1.3336	0.3200	1.7353
0.22	-1.3303	0.3375	1.7669
0.23	-1.3269	0.3553	1.8002
0.24	-1.3232	0.3735	1.8350
0.25	-1.3194	0.3920	1.8715
0.26	-1.3154	0.4109	1.9097
0.27	-1.3112	0.4302	1.9496
0.28	-1.3068	0.4499	1.9912
0.29	-1.3022	0.4700	2.0345
0.30	-1.2974	0.4906	2.0796
0.31	-1.2924	0.5117	2.1265
0.32	-1.2871	0.5332	2.1751
0.33	-1.2817	0.5552	2.2256
0.34	-1.2760	0.5777	2.2779
0.35	-1.2701	0.6007	2.3321
0.36	-1.2640	0.6243	2.3881
0.37	-1.2577	0.6485	2.4461
0.38	-1.2511	0.6733	2.5059
0.39	-1.2442	0.6986	2.5677
0.40	-1.2371	0.7246	2.6315
0.41	-1.2297	0.7513	2.6972
0.42	-1.2221	0.7786	2.7649
0.43	-1.2141	0.8066	2.8346
0.44	-1.2059	0.8353	2.9063
0.45	-1.1974	0.8647	2.9801
0.46	-1.1886	0.8949	3.0559
0.47	-1.1795	0.9258	3.1337
0.48	-1.1701	0.9576	3.2136
0.49	-1.1604	0.9901	3.2955
0.50	-1.1503	1.0235	3.3795

ξ	Φ	Φ'	Φ''
0.50	-1.1503	1.0235	3.3795
0.51	-1.1399	1.0577	3.4656
0.52	-1.1292	1.0928	3.5537
0.53	-1.1180	1.1288	3.6438
0.54	-1.1066	1.1657	3.7359
0.55	-1.0947	1.2035	3.8301
0.56	-1.0825	1.2423	3.9262
0.57	-1.0699	1.2821	4.0243
0.58	-1.0569	1.3228	4.1242
0.59	-1.0434	1.3646	4.2261
0.60	-1.0296	1.4073	4.3298
0.61	-1.0153	1.4512	4.4353
0.62	-1.0006	1.4961	4.5426
0.63	-0.9854	1.5420	4.6515
0.64	-0.9697	1.5891	4.7620
0.65	-0.9536	1.6373	4.8740
0.66	-0.9370	1.6866	4.9874
0.67	-0.9199	1.7370	5.1021
0.68	-0.9022	1.7886	5.2180
0.69	-0.8841	1.8414	5.3351
0.70	-0.8654	1.8953	5.4531
0.71	-0.8462	1.9505	5.5718
0.72	-0.8264	2.0068	5.6913
0.73	-0.8060	2.0643	5.8112
0.74	-0.7851	2.1230	5.9315
0.75	-0.7636	2.1829	6.0518
0.76	-0.7414	2.2440	6.1720
0.77	-0.7187	2.3064	6.2919
0.78	-0.6953	2.3699	6.4112
0.79	-0.6713	2.4346	6.5297
0.80	-0.6466	2.5005	6.6471
0.81	-0.6213	2.5675	6.7630
0.82	-0.5953	2.6357	6.8772
0.83	-0.5686	2.7050	6.9893
0.84	-0.5412	2.7755	7.0991
0.85	-0.5131	2.8470	7.2060
0.86	-0.4842	2.9196	7.3097
0.87	-0.4547	2.9932	7.4099
0.88	-0.4244	3.0678	7.5060
0.89	-0.3933	3.1433	7.5975
0.90	-0.3615	3.2197	7.6842
0.91	-0.3289	3.2969	7.7653
0.92	-0.2956	3.3750	7.8404
0.93	-0.2614	3.4537	7.9090
0.94	-0.2265	3.5331	7.9704
0.95	-0.1908	3.6131	8.0241
0.96	-0.1542	3.6936	8.0695
0.97	-0.1169	3.7744	8.1059
0.98	-0.0787	3.8556	8.1328
0.99	-0.0398	3.9370	8.1493
1.00	0.0000	4.0185	8.1659

$\lambda = 2.0$

$\Delta\Pi = 2.1696$

ξ	Φ	Φ'	Φ''
0.00	-1.3563	0.0000	1.3210
0.01	-1.3562	0.0132	1.3217
0.02	-1.3560	0.0264	1.3238
0.03	-1.3557	0.0397	1.3274
0.04	-1.3552	0.0530	1.3324
0.05	-1.3547	0.0664	1.3389
0.06	-1.3539	0.0798	1.3468
0.07	-1.3531	0.0933	1.3562
0.08	-1.3521	0.1069	1.3670
0.09	-1.3509	0.1206	1.3793
0.10	-1.3496	0.1345	1.3931
0.11	-1.3482	0.1485	1.4084
0.12	-1.3467	0.1627	1.4252
0.13	-1.3450	0.1770	1.4435
0.14	-1.3431	0.1916	1.4633
0.15	-1.3411	0.2063	1.4846
0.16	-1.3390	0.2213	1.5076
0.17	-1.3367	0.2365	1.5321
0.18	-1.3343	0.2519	1.5582
0.19	-1.3317	0.2676	1.5859
0.20	-1.3289	0.2836	1.6152
0.21	-1.3260	0.2999	1.6462
0.22	-1.3229	0.3166	1.6789
0.23	-1.3197	0.3335	1.7132
0.24	-1.3163	0.3508	1.7493
0.25	-1.3127	0.3685	1.7872
0.26	-1.3089	0.3866	1.8268
0.27	-1.3049	0.4051	1.8681
0.28	-1.3008	0.4240	1.9114
0.29	-1.2964	0.4433	1.9564
0.30	-1.2919	0.4631	2.0033
0.31	-1.2872	0.4834	2.0522
0.32	-1.2822	0.5042	2.1029
0.33	-1.2771	0.5254	2.1556
0.34	-1.2717	0.5473	2.2103
0.35	-1.2662	0.5697	2.2670
0.36	-1.2603	0.5926	2.3258
0.37	-1.2543	0.6162	2.3866
0.38	-1.2480	0.6404	2.4495
0.39	-1.2415	0.6652	2.5145
0.40	-1.2347	0.6907	2.5817
0.41	-1.2277	0.7168	2.6510
0.42	-1.2204	0.7437	2.7225
0.43	-1.2128	0.7713	2.7962
0.44	-1.2050	0.7996	2.8722
0.45	-1.1968	0.8288	2.9504
0.46	-1.1884	0.8587	3.0309
0.47	-1.1796	0.8894	3.1137
0.48	-1.1706	0.9209	3.1988
0.49	-1.1612	0.9534	3.2863
0.50	-1.1515	0.9867	3.3760

ξ	Φ	Φ'	Φ''
0.50	-1.1515	0.9867	3 3760
0.51	-1.1415	1.0209	3.4681
0.52	-1.1311	1.0561	3.5625
0.53	-1.1204	1.0922	3.6592
0.54	-1.1093	1.1293	3.7583
0.55	-1.0978	1.1673	3.8597
0.56	-1.0859	1.2065	3.9634
0.57	-1.0737	1.2466	4.0693
0.58	-1.0610	1.2879	4.1775
0.59	-1.0479	1.3302	4.2879
0.60	-1.0344	1.3736	4.4005
0.61	-1.0204	1.4182	4.5153
0.62	-1.0060	1.4639	4.6321
0.63	-0.9911	1.5109	4 7509
0.64	-0.9758	1.5590	4.8717
0.65	-0.9600	1.6083	4.9943
0.66	-0.9436	1.6589	5.1186
0.67	-0.9268	1.7107	5.2447
0.68	-0.9094	1.7638	5.3723
0.69	-0.8915	1.8181	5.5013
0.70	-0.8731	1.8738	5.6315
0.71	-0.8540	1.9308	5.7629
0.72	-0.8344	1.9891	5.8953
0.73	-0.8143	2.0487	6.0284
0.74	-0.7935	2.1096	6.1621
0.75	-0.7721	2.1719	6.2961
0.76	-0.7500	2.2356	6.4302
0.77	-0.7274	2.3005	6.5642
0.78	-0.7040	2.3668	6.6978
0.79	-0.6800	2.4345	6.8307
0.80	-0.6553	2.5034	6.9625
0.81	-0.6299	2.5737	7.0929
0.82	-0.6039	2.6453	7.2217
0.83	-0.5770	2.7181	7.3483
0.84	-0.5495	2.7922	7.4724
0.85	-0.5212	2.8676	7.5935
0.86	-0.4921	2.9441	7.7112
0.87	-0.4623	3.0218	7.8250
0.88	-0.4317	3.1006	7.9344
0.89	-0.4003	3.1804	8.0388
0.90	-0.3681	3.2613	8.1377
0.91	-0.3351	3.3432	8.2305
0.92	-0.3012	3.4259	8.3165
0.93	-0.2666	3.5095	8.3952
0.94	-0.2310	3.5938	8.4658
0.95	-0.1947	3.6787	8.5276
0.96	-0.1575	3.7643	8.5799
0.97	-0.1194	3.8503	8.6219
0.98	-0.0805	3.9367	8.6529
0.99	-0.0407	4.0233	8.6720
1.00	0.0000	4 1100	8.6912

$\lambda = 2.20$

$\Delta\Pi = 2.0231$

ξ	Φ	Φ'	Φ''
0.00	-1.3373	0.0000	1.1372
0.01	-1.3372	0.0114	1.1379
0.02	-1.3371	0.0228	1.1401
0.03	-1.3368	0.0342	1.1438
0.04	-1.3364	0.0456	1.1490
0.05	-1.3359	0.0572	1.1556
0.06	-1.3352	0.0688	1.1637
0.07	-1.3345	0.0805	1.1734
0.08	-1.3336	0.0922	1.1845
0.09	-1.3326	0.1042	1.1972
0.10	-1.3315	0.1162	1.2114
0.11	-1.3303	0.1284	1.2272
0.12	-1.3290	0.1407	1.2445
0.13	-1.3275	0.1533	1.2634
0.14	-1.3259	0.1660	1.2839
0.15	-1.3242	0.1790	1.3061
0.16	-1.3223	0.1922	1.3298
0.17	-1.3203	0.2056	1.3553
0.18	-1.3182	0.2193	1.3824
0.19	-1.3160	0.2332	1.4113
0.20	-1.3135	0.2475	1.4419
0.21	-1.3110	0.2621	1.4742
0.22	-1.3083	0.2770	1.5084
0.23	-1.3055	0.2923	1.5444
0.24	-1.3025	0.3079	1.5823
0.25	-1.2993	0.3239	1.6221
0.26	-1.2960	0.3403	1.6638
0.27	-1.2925	0.3572	1.7076
0.28	-1.2888	0.3745	1.7533
0.29	-1.2850	0.3923	1.8010
0.30	-1.2810	0.4105	1.8509
0.31	-1.2768	0.4293	1.9029
0.32	-1.2724	0.4486	1.9571
0.33	-1.2678	0.4685	2.0135
0.34	-1.2630	0.4889	2.0721
0.35	-1.2580	0.5099	2.1331
0.36	-1.2528	0.5316	2.1964
0.37	-1.2474	0.5539	2.2620
0.38	-1.2418	0.5768	2.3302
0.39	-1.2359	0.6005	2.4008
0.40	-1.2298	0.6248	2.4739
0.41	-1.2234	0.6500	2.5496
0.42	-1.2168	0.6758	2.6279
0.43	-1.2099	0.7025	2.7089
0.44	-1.2027	0.7300	2.7925
0.45	-1.1953	0.7584	2.8789
0.46	-1.1875	0.7876	2.9681
0.47	-1.1795	0.8178	3.0600
0.48	-1.1712	0.8488	3.1549
0.49	-1.1625	0.8809	3.2526
0.50	-1.1536	0.9139	3.3532

ξ	Φ	Φ'	Φ''
0.50	-1.1536	0.9139	3.3532
0.51	-1.1443	0.9480	3.4567
0.52	-1.1346	0.9831	3.5632
0.53	-1.1246	1.0192	3.6727
0.54	-1.1142	1.0565	3.7852
0.55	-1.1035	1.0950	3.9007
0.56	-1.0923	1.1346	4.0192
0.57	-1.0808	1.1754	4.1406
0.58	-1.0688	1.2174	4.2651
0.59	-1.0564	1.2607	4.3926
0.60	-1.0436	1.3053	4.5230
0.61	-1.0303	1.3511	4.6563
0.62	-1.0166	1.3984	4.7925
0.63	-1.0024	1.4470	4.9315
0.64	-0.9876	1.4970	5.0733
0.65	-0.9724	1.5485	5.2178
0.66	-0.9567	1.6014	5.3648
0.67	-0.9404	1.6558	5.5143
0.68	-0.9236	1.7117	5 6662
0.69	-0.9062	1.7691	5.8203
0.70	-0.8882	1.8281	5.9765
0.71	-0.8696	1.8887	6 1346
0.72	-0.8504	1.9508	6.2944
0.73	-0.8306	2.0146	6.4557
0.74	-0.8101	2.0799	6.6182
0.75	-0.7890	2.1469	6.7817
0.76	-0.7672	2.2156	6.9460
0.77	-0.7447	2.2859	7.1106
0.78	-0.7214	2.3578	7.2753
0.79	-0.6975	2.4314	7.4397
0.80	-0.6728	2.5066	7.6034
0.81	-0.6474	2.5834	7.7660
0.82	-0.6212	2.6619	7.9269
0.83	-0.5941	2.7420	8.0858
0.84	-0.5663	2.8236	8.2420
0.85	-0.5377	2.9068	8.3950
0.86	-0.5082	2.9915	8.5441
0.87	-0.4778	3.0776	8.6889
0.88	-0.4466	3.1652	8.8284
0.89	-0.4145	3.2542	8.9621
0.90	-0.3815	3.3444	9.0891
0.91	-0.3476	3.4359	9.2086
0.92	-0.3128	3.5286	9.3197
0.93	-0.2771	3.6223	9.4217
0.94	-0.2404	3.7169	9.5134
0.95	-0.2027	3.8125	9.5940
0.96	-0.1641	3.9088	9.6623
0.97	-0.1246	4.0057	9.7174
0.98	-0.0840	4.1030	9.7582
0.99	-0.0425	4 2007	9.7834
1.00	0.0000	4.2986	9.8086

$\lambda = 2.40$

$\Delta\Pi = 1.9084$

ξ	Φ	Φ'	Φ''
0.00	-1.3190	0.0000	0.9712
0.01	-1.3190	0.0097	0.9719
0.02	-1.3189	0.0194	0.9741
0.03	-1.3186	0.0292	0.9778
0.04	-1.3183	0.0390	0.9830
0.05	-1.3178	0.0489	0.9897
0.06	-1.3173	0.0588	0.9979
0.07	-1.3167	0.0688	1.0075
0.08	-1.3159	0.0790	1.0188
0.09	-1.3151	0.0892	1.0315
0.10	-1.3141	0.0996	1.0458
0.11	-1.3131	0.1101	1.0617
0.12	-1.3119	0.1208	1.0792
0.13	-1.3107	0.1317	1.0982
0.14	-1.3093	0.1428	1.1190
0.15	-1.3078	0.1541	1.1414
0.16	-1.3062	0.1657	1.1654
0.17	-1.3045	0.1774	1.1912
0.18	-1.3027	0.1895	1.2188
0.19	-1.3007	0.2018	1.2482
0.20	-1.2986	0.2145	1.2793
0.21	-1.2964	0.2274	1.3124
0.22	-1.2941	0.2407	1.3473
0.23	-1.2916	0.2544	1.3842
0.24	-1.2890	0.2684	1.4230
0.25	-1.2862	0.2828	1.4639
0.26	-1.2833	0.2977	1.5069
0.27	-1.2803	0.3130	1.5520
0.28	-1.2771	0.3288	1.5993
0.29	-1.2737	0.3450	1.6488
0.30	-1.2702	0.3617	1.7006
0.31	-1.2665	0.3790	1.7547
0.32	-1.2626	0.3968	1.8113
0.33	-1.2585	0.4153	1.8703
0.34	-1.2543	0.4343	1.9318
0.35	-1.2498	0.4539	1.9958
0.36	-1.2452	0.4742	2.0625
0.37	-1.2404	0.4952	2.1319
0.38	-1.2353	0.5168	2.2041
0.39	-1.2300	0.5393	2.2791
0.40	-1.2245	0.5624	2.3570
0.41	-1.2188	0.5864	2.4379
0.42	-1.2128	0.6112	2.5218
0.43	-1.2066	0.6369	2.6088
0.44	-1.2001	0.6634	2.6989
0.45	-1.1933	0.6909	2.7923
0.46	-1.1862	0.7193	2.8889
0.47	-1.1789	0.7487	2.9889
0.48	-1.1713	0.7791	3.0924
0.49	-1.1633	0.8105	3.1993
0.50	-1.1551	0.8431	3.3097

ξ	Φ	Φ'	Φ''
0.50	-1.1551	0.8431	3.3097
0.51	-1.1465	0.8767	3.4237
0.52	-1.1375	0.9116	3.5414
0.53	-1.1282	0.9476	3.6627
0.54	-1.1186	0.9848	3.7878
0.55	-1.1085	1.0234	3.9166
0.56	-1.0981	1.0632	4.0492
0.57	-1.0873	1.1044	4.1857
0.58	-1.0760	1.1469	4.3259
0.59	-1.0643	1.1909	4.4701
0.60	-1.0522	1.2363	4.6180
0.61	-1.0396	1.2833	4.7698
0.62	-1.0265	1.3318	4.9254
0.63	-1.0130	1.3818	5.0848
0.64	-0.9989	1.4335	5.2480
0.65	-0.9843	1.4868	5.4148
0.66	-0.9692	1.5418	5.5851
0.67	-0.9535	1.5985	5.7590
0.68	-0.9372	1.6570	5.9363
0.69	-0.9203	1.7172	6.1168
0.70	-0.9028	1.7793	6.3004
0.71	-0.8847	1.8433	6.4868
0.72	-0.8660	1.9091	6.6760
0.73	-0.8466	1.9768	6.8676
0.74	-0.8264	2.0464	7.0615
0.75	-0.8056	2.1180	7.2572
0.76	-0.7841	2.1916	7.4544
0.77	-0.7618	2.2671	7.6529
0.78	-0.7387	2.3447	7.8521
0.79	-0.7149	2.4242	8.0517
0.80	-0.6903	2.5057	8.2511
0.81	-0.6648	2.5892	8.4499
0.82	-0.6385	2.6747	8.6474
0.83	-0.6113	2.7621	8.8429
0.84	-0.5832	2.8515	9.0360
0.85	-0.5543	2.9428	9.2257
0.86	-0.5244	3.0360	9.4113
0.87	-0.4935	3.1310	9.5919
0.88	-0.4618	3.2278	9.7667
0.89	-0.4290	3.3263	9.9347
0.90	-0.3952	3.4265	10.095
0.91	-0.3605	3.5282	10.246
0.92	-0.3247	3.6314	10.387
0.93	-0.2878	3.7359	10.517
0.94	-0.2499	3.8416	10.634
0.95	-0.2110	3.9485	10.737
0.96	-0.1710	4.0563	10.825
0.97	-0.1299	4.1649	10.896
0.98	-0.0877	4.2741	10.949
0.99	-0.0444	4.3838	10.981
1.00	0.0000	4.4936	11.014

$\lambda = 2.60$

$\Delta\Pi = 1.8162$

ξ	Φ	Φ'	Φ''
0.00	-1.3017	0.0000	0.8235
0.01	-1.3017	0.0082	0.8243
0.02	-1.3016	0.0165	0.8264
0.03	-1.3014	0.0248	0.8301
0.04	-1.3011	0.0331	0.8352
0.05	-1.3007	0.0415	0.8417
0.06	-1.3002	0.0499	0.8498
0.07	-1.2997	0.0585	0.8593
0.08	-1.2991	0.0671	0.8703
0.09	-1.2984	0.0759	0.8829
0.10	-1.2976	0.0848	0.8970
0.11	-1.2967	0.0939	0.9127
0.12	-1.2957	0.1031	0.9299
0.13	-1.2946	0.1125	0.9488
0.14	-1.2934	0.1220	0.9693
0.15	-1.2922	0.1319	0.9915
0.16	-1.2908	0.1419	1.0154
0.17	-1.2893	0.1522	1.0411
0.18	-1.2878	0.1627	1.0685
0.19	-1.2861	0.1736	1.0978
0.20	-1.2843	0.1847	1.1289
0.21	-1.2824	0.1961	1.1620
0.22	-1.2804	0.2079	1.1970
0.23	-1.2782	0.2201	1.2340
0.24	-1.2760	0.2326	1.2731
0.25	-1.2736	0.2456	1.3144
0.26	-1.2710	0.2589	1.3578
0.27	-1.2684	0.2727	1.4034
0.28	-1.2656	0.2870	1.4514
0.29	-1.2626	0.3018	1.5017
0.30	-1.2596	0.3170	1.5545
0.31	-1.2563	0.3329	1.6098
0.32	-1.2529	0.3493	1.6676
0.33	-1.2493	0.3662	1.7282
0.34	-1.2456	0.3838	1.7914
0.35	-1.2416	0.4021	1.8575
0.36	-1.2375	0.4210	1.9265
0.37	-1.2332	0.4406	1.9985
0.38	-1.2287	0.4610	2.0736
0.39	-1.2240	0.4821	2.1518
0.40	-1.2191	0.5040	2.2332
0.41	-1.2139	0.5268	2.3180
0.42	-1.2085	0.5504	2.4063
0.43	-1.2029	0.5749	2.4980
0.44	-1.1970	0.6004	2.5934
0.45	-1.1909	0.6268	2.6925
0.46	-1.1845	0.6543	2.7953
0.47	-1.1778	0.6827	2.9021
0.48	-1.1709	0.7123	3.0129
0.49	-1.1636	0.7430	3.1278
0.50	-1.1560	0.7749	3.2468

ξ	Φ	Φ'	Φ''
0.50	-1.1560	0.7749	3.2468
0.51	-1.1481	0.8080	3.3701
0.52	-1.1398	0.8423	3.4978
0.53	-1.1312	0.8780	3.6298
0.54	-1.1223	0.9149	3.7664
0.55	-1.1129	0.9533	3.9076
0.56	-1.1032	0.9931	4.0534
0.57	-1.0931	1.0344	4.2040
0.58	-1.0825	1.0772	4.3593
0.59	-1.0715	1.1216	4.5194
0.60	-1.0601	1.1676	4.6844
0.61	-1.0482	1.2153	4.8542
0.62	-1.0358	1.2647	5.0289
0.63	-1.0229	1.3159	5.2085
0.64	-1.0095	1.3689	5.3929
0.65	-0.9955	1.4238	5.5822
0.66	-0.9810	1.4806	5.7762
0.67	-0.9659	1.5394	5.9750
0.68	-0.9502	1.6001	6.1783
0.69	-0.9339	1.6629	6.3861
0.70	-0.9169	1.7279	6.5982
0.71	-0.8993	1.7949	6.8145
0.72	-0.8810	1.8642	7.0346
0.73	-0.8620	1.9356	7.2585
0.74	-0.8423	2.0094	7.4857
0.75	-0.8219	2.0854	7.7160
0.76	-0.8006	2.1637	7.9490
0.77	-0.7786	2.2444	8.1842
0.78	-0.7557	2.3274	8.4212
0.79	-0.7320	2.4128	8.6595
0.80	-0.7075	2.5006	8.8985
0.81	-0.6820	2.5908	9.1375
0.82	-0.6557	2.6833	9.3759
0.83	-0.6284	2.7783	9.6128
0.84	-0.6001	2.8756	9.8474
0.85	-0.5708	2.9752	10.079
0.86	-0.5406	3.0771	10.306
0.87	-0.5093	3.1813	10.528
0.88	-0.4770	3.2877	10.743
0.89	-0.4436	3.3961	10.951
0.90	-0.4090	3.5066	11.150
0.91	-0.3734	3.6191	11.338
0.92	-0.3367	3.7333	11.514
0.93	-0.2988	3.8493	11.677
0.94	-0.2597	3.9668	11.824
0.95	-0.2194	4.0857	11.954
0.96	-0.1780	4.2058	12.065
0.97	-0.1353	4.3269	12.155
0.98	-0.0914	4.4488	12.222
0.99	-0.0463	4.5712	12.264
1.00	0.0000	4.6938	12.305

$\lambda = 2.80$

$\Delta\Pi = 1.7408$

ξ	Φ	Φ'	Φ''
0.00	-1.2854	0.0000	0.6939
0.01	-1.2854	0.0069	0.6946
0.02	-1.2853	0.0139	0.6967
0.03	-1.2851	0.0209	0.7002
0.04	-1.2849	0.0279	0.7051
0.05	-1.2846	0.0350	0.7114
0.06	-1.2842	0.0421	0.7192
0.07	-1.2837	0.0494	0.7284
0.08	-1.2832	0.0567	0.7391
0.09	-1.2826	0.0642	0.7513
0.10	-1.2819	0.0718	0.7649
0.11	-1.2811	0.0795	0.7801
0.12	-1.2803	0.0874	0.7969
0.13	-1.2794	0.0954	0.8153
0.14	-1.2784	0.1037	0.8352
0.15	-1.2773	0.1121	0.8569
0.16	-1.2762	0.1208	0.8802
0.17	-1.2749	0.1298	0.9053
0.18	-1.2736	0.1389	0.9321
0.19	-1.2721	0.1484	0.9608
0.20	-1.2706	0.1582	0.9914
0.21	-1.2690	0.1682	1.0239
0.22	-1.2672	0.1786	1.0584
0.23	-1.2654	0.1894	1.0949
0.24	-1.2634	0.2006	1.1336
0.25	-1.2614	0.2121	1.1745
0.26	-1.2592	0.2241	1.2176
0.27	-1.2569	0.2365	1.2630
0.28	-1.2545	0.2493	1.3109
0.29	-1.2519	0.2627	1.3612
0.30	-1.2492	0.2766	1.4141
0.31	-1.2464	0.2910	1.4696
0.32	-1.2434	0.3060	1.5279
0.33	-1.2403	0.3216	1.5891
0.34	-1.2370	0.3378	1.6531
0.35	-1.2335	0.3546	1.7202
0.36	-1.2299	0.3722	1.7904
0.37	-1.2261	0.3905	1.8639
0.38	-1.2221	0.4095	1.9407
0.39	-1.2179	0.4293	2.0209
0.40	-1.2135	0.4499	2.1048
0.41	-1.2089	0.4714	2.1923
0.42	-1.2041	0.4938	2.2836
0.43	-1.1990	0.5171	2.3789
0.44	-1.1937	0.5414	2.4782
0.45	-1.1882	0.5667	2.5817
0.46	-1.1824	0.5930	2.6895
0.47	-1.1763	0.6205	2.8017
0.48	-1.1700	0.6491	2.9185
0.49	-1.1633	0.6789	3.0400
0.50	-1.1564	0.7099	3.1664

ξ	Φ	Φ'	Φ''
0.50	-1.1564	0.7099	3.1664
0.51	-1.1491	0.7422	3.2977
0.52	-1.1415	0.7759	3.4340
0.53	-1.1336	0.8109	3.5756
0.54	-1.1253	0.8474	3.7225
0.55	-1.1167	0.8854	3.8748
0.56	-1.1076	0.9250	4.0327
0.57	-1.0982	0.9661	4.1963
0.58	-1.0883	1.0089	4.3656
0.59	-1.0780	1.0534	4.5407
0.60	-1.0672	1.0998	4.7218
0.61	-1.0560	1.1479	4.9090
0.62	-1.0443	1.1980	5.1021
0.63	-1.0320	1.2500	5.3014
0.64	-1.0193	1.3040	5.5068
0.65	-1.0060	1.3602	5.7183
0.66	-0.9921	1.4184	5.9360
0.67	-0.9776	1.4789	6.1597
0.68	-0.9625	1.5416	6.3894
0.69	-0.9468	1.6067	6.6251
0.70	-0.9304	1.6742	6.8665
0.71	-0.9133	1.7441	7.1135
0.72	-0.8955	1.8165	7.3660
0.73	-0.8769	1.8914	7.6236
0.74	-0.8576	1.9690	7.8860
0.75	-0.8376	2.0492	8.1530
0.76	-0.8167	2.1321	8.4241
0.77	-0.7949	2.2177	8.6988
0.78	-0.7723	2.3060	8.9767
0.79	-0.7488	2.3972	9.2570
0.80	-0.7244	2.4912	9.5392
0.81	-0.6990	2.5880	9.8225
0.82	-0.6726	2.6876	10.106
0.83	-0.6452	2.7901	10.389
0.84	-0.6168	2.8954	10.670
0.85	-0.5873	3.0035	10.948
0.86	-0.5567	3.1144	11.222
0.87	-0.5250	3.2279	11.491
0.88	-0.4922	3.3441	11.753
0.89	-0.4581	3.4629	12.006
0.90	-0.4229	3.5842	12.250
0.91	-0.3865	3.7079	12.480
0.92	-0.3488	3.8338	12.697
0.93	-0.3098	3.9617	12.898
0.94	-0.2695	4.0916	13.081
0.95	-0.2280	4.2232	13.243
0.96	-0.1851	4.3564	13.381
0.97	-0.1408	4.4907	13.494
0.98	-0.0952	4.6261	13.578
0.99	-0.0483	4.7621	13.630
1.00	0.0000	4.8984	13.682

$\lambda = 3.0$

$\Delta\Pi = 1.6778$

ξ	Φ	Φ'	Φ''
0.00	-1.2702	0.0000	0.5812
0.01	-1.2701	0.0058	0.5819
0.02	-1.2700	0.0116	0.5839
0.03	-1.2699	0.0175	0.5872
0.04	-1.2697	0.0234	0.5919
0.05	-1.2694	0.0293	0.5979
0.06	-1.2691	0.0354	0.6053
0.07	-1.2687	0.0415	0.6141
0.08	-1.2683	0.0477	0.6243
0.09	-1.2678	0.0540	0.6359
0.10	-1.2672	0.0604	0.6489
0.11	-1.2666	0.0669	0.6635
0.12	-1.2659	0.0737	0.6795
0.13	-1.2651	0.0805	0.6971
0.14	-1.2643	0.0876	0.7162
0.15	-1.2633	0.0949	0.7370
0.16	-1.2624	0.1024	0.7594
0.17	-1.2613	0.1101	0.7836
0.18	-1.2602	0.1180	0.8094
0.19	-1.2589	0.1263	0.8372
0.20	-1.2576	0.1348	0.8667
0.21	-1.2562	0.1436	0.8982
0.22	-1.2548	0.1528	0.9317
0.23	-1.2532	0.1623	0.9673
0.24	-1.2515	0.1721	1.0050
0.25	-1.2497	0.1824	1.0449
0.26	-1.2479	0.1930	1.0872
0.27	-1.2459	0.2041	1.1317
0.28	-1.2438	0.2157	1.1788
0.29	-1.2416	0.2277	1.2284
0.30	-1.2392	0.2403	1.2807
0.31	-1.2368	0.2533	1.3357
0.32	-1.2342	0.2670	1.3936
0.33	-1.2314	0.2812	1.4544
0.34	-1.2285	0.2961	1.5184
0.35	-1.2255	0.3116	1.5855
0.36	-1.2223	0.3278	1.6560
0.37	-1.2189	0.3447	1.7299
0.38	-1.2154	0.3624	1.8074
0.39	-1.2117	0.3809	1.8886
0.40	-1.2078	0.4002	1.9737
0.41	-1.2037	0.4204	2.0628
0.42	-1.1994	0.4415	2.1561
0.43	-1.1949	0.4635	2.2536
0.44	-1.1901	0.4866	2.3556
0.45	-1.1851	0.5107	2.4623
0.46	-1.1799	0.5359	2.5737
0.47	-1.1744	0.5622	2.6901
0.48	-1.1687	0.5897	2.8116
0.49	-1.1626	0.6184	2.9384
0.50	-1.1563	0.6485	3.0706

ξ	Φ	Φ'	Φ''
0.50	-1.1563	0.6485	3.0706
0.51	-1.1496	0.6799	3.2085
0.52	-1.1427	0.7127	3.3522
0.53	-1.1354	0.7470	3.5019
0.54	-1.1277	0.7828	3.6578
0.55	-1.1197	0.8201	3.8199
0.56	-1.1113	0.8592	3.9886
0.57	-1.1026	0.8999	4.1639
0.58	-1.0933	0.9425	4.3460
0.59	-1.0837	0.9869	4.5351
0.60	-1.0736	1.0332	4.7313
0.61	-1.0630	1.0816	4.9347
0.62	-1.0520	1.1320	5.1454
0.63	-1.0404	1.1845	5.3635
0.64	-1.0283	1.2393	5.5892
0.65	-1.0156	1.2963	5.8225
0.66	-1.0024	1.3558	6.0633
0.67	-0.9885	1.4176	6.3118
0.68	-0.9740	1.4820	6.5679
0.69	-0.9589	1.5490	6.8316
0.70	-0.9430	1.6187	7.1027
0.71	-0.9265	1.6911	7.3812
0.72	-0.9092	1.7664	7.6668
0.73	-0.8912	1.8445	7.9593
0.74	-0.8723	1.9256	8.2585
0.75	-0.8526	2.0097	8.5639
0.76	-0.8321	2.0969	8.8752
0.77	-0.8107	2.1872	9.1919
0.78	-0.7884	2.2808	9.5133
0.79	-0.7651	2.3775	9.8389
0.80	-0.7408	2.4776	10.168
0.81	-0.7155	2.5809	10.499
0.82	-0.6892	2.6875	10.832
0.83	-0.6618	2.7975	11.165
0.84	-0.6333	2.9108	11.498
0.85	-0.6036	3.0275	11.828
0.86	-0.5727	3.1474	12.155
0.87	-0.5406	3.2705	12.476
0.88	-0.5073	3.3969	12.790
0.89	-0.4727	3.5263	13.095
0.90	-0.4368	3.6587	13.389
0.91	-0.3995	3.7940	13.669
0.92	-0.3609	3.9320	13.933
0.93	-0.3209	4.0726	14.178
0.94	-0.2794	4.2155	14.401
0.95	-0.2366	4.3605	14.600
0.96	-0.1922	4.5073	14.770
0.97	-0.1464	4.6557	14.909
0.98	-0.0991	4.8053	15.013
0.99	-0.0503	4.9558	15.078
1.00	0.0000	5.1066	15.143

$\lambda = 3.2$

$\Delta\Pi = 1.6250$

ξ	Φ	Φ'	Φ''
0.00	-1.2559	0.0000	0.4844
0.01	-1.2559	0.0048	0.4850
0.02	-1.2558	0.0097	0.4868
0.03	-1.2557	0.0146	0.4900
0.04	-1.2555	0.0195	0.4944
0.05	-1.2553	0.0245	0.5000
0.06	-1.2551	0.0295	0.5070
0.07	-1.2547	0.0346	0.5152
0.08	-1.2544	0.0398	0.5248
0.09	-1.2539	0.0451	0.5357
0.10	-1.2535	0.0506	0.5480
0.11	-1.2529	0.0561	0.5617
0.12	-1.2523	0.0618	0.5768
0.13	-1.2517	0.0676	0.5934
0.14	-1.2510	0.0737	0.6115
0.15	-1.2502	0.0799	0.6312
0.16	-1.2494	0.0863	0.6525
0.17	-1.2485	0.0929	0.6754
0.18	-1.2475	0.0998	0.7001
0.19	-1.2465	0.1069	0.7265
0.20	-1.2454	0.1144	0.7548
0.21	-1.2442	0.1221	0.7849
0.22	-1.2429	0.1301	0.8170
0.23	-1.2416	0.1384	0.8512
0.24	-1.2402	0.1471	0.8875
0.25	-1.2387	0.1562	0.9260
0.26	-1.2371	0.1656	0.9668
0.27	-1.2353	0.1755	1.0100
0.28	-1.2335	0.1858	1.0557
0.29	-1.2316	0.1966	1.1041
0.30	-1.2296	0.2079	1.1551
0.31	-1.2275	0.2198	1.2089
0.32	-1.2252	0.2321	1.2657
0.33	-1.2228	0.2451	1.3255
0.34	-1.2203	0.2587	1.3886
0.35	-1.2177	0.2729	1.4550
0.36	-1.2149	0.2878	1.5248
0.37	-1.2119	0.3034	1.5983
0.38	-1.2088	0.3198	1.6756
0.39	-1.2055	0.3369	1.7568
0.40	-1.2020	0.3549	1.8421
0.41	-1.1984	0.3738	1.9317
0.42	-1.1946	0.3936	2.0258
0.43	-1.1905	0.4143	2.1245
0.44	-1.1863	0.4361	2.2281
0.45	-1.1818	0.4589	2.3366
0.46	-1.1771	0.4828	2.4504
0.47	-1.1722	0.5079	2.5697
0.48	-1.1670	0.5343	2.6946
0.49	-1.1615	0.5619	2.8253
0.50	-1.1557	0.5908	2.9621

ξ	Φ	Φ'	Φ''
0.50	-1.1557	0.5908	2.9621
0.51	-1.1497	0.6211	3.1052
0.52	-1.1433	0.6529	3.2549
0.53	-1.1366	0.6863	3.4113
0.54	-1.1296	0.7212	3.5746
0.55	-1.1222	0.7578	3.7452
0.56	-1.1144	0.7961	3.9232
0.57	-1.1063	0.8363	4.1089
0.58	-1.0977	0.8784	4.3025
0.59	-1.0887	0.9224	4.5041
0.60	-1.0792	0.9685	4.7141
0.61	-1.0693	1.0167	4.9325
0.62	-1.0589	1.0672	5.1597
0.63	-1.0480	1.1200	5.3957
0.64	-1.0365	1.1751	5.6407
0.65	-1.0245	1.2328	5.8948
0.66	-1.0118	1.2931	6.1583
0.67	-0.9986	1.3560	6.4310
0.68	-0.9847	1.4217	6.7131
0.69	-0.9702	1.4903	7.0046
0.70	-0.9549	1.5619	7.3055
0.71	-0.9389	1.6365	7.6157
0.72	-0.9222	1.7142	7.9350
0.73	-0.9046	1.7952	8.2632
0.74	-0.8863	1.8796	8.6002
0.75	-0.8671	1.9673	8.9455
0.76	-0.8469	2.0585	9.2988
0.77	-0.8259	2.1533	9.6595
0.78	-0.8039	2.2517	10.027
0.79	-0.7809	2.3539	10.401
0.80	-0.7568	2.4598	10.780
0.81	-0.7317	2.5695	11.163
0.82	-0.7054	2.6830	11.549
0.83	-0.6780	2.8005	11.937
0.84	-0.6494	2.9218	12.326
0.85	-0.6196	3.0470	12.713
0.86	-0.5885	3.1760	13.098
0.87	-0.5560	3.3089	13.478
0.88	-0.5223	3.4455	13.850
0.89	-0.4871	3.5859	14.213
0.90	-0.4506	3.7297	14.564
0.91	-0.4125	3.8771	14.900
0.92	-0.3730	4.0276	15.217
0.93	-0.3320	4.1813	15.513
0.94	-0.2894	4.3378	15.783
0.95	-0.2452	4.4968	16.024
0.96	-0.1995	4.6581	16.232
0.97	-0.1521	4.8213	16.402
0.98	-0.1030	4.9859	16.529
0.99	-0.0523	5.1516	16.609
1.00	0.0000	5.3177	16.689

$\lambda = 3.40$

$\Delta\Pi = 1.5790$

ξ	Φ	Φ'	Φ''
0.00	-1.2427	0.0000	0.4017
0.01	-1.2427	0.0040	0.4023
0.02	-1.2426	0.0081	0.4040
0.03	-1.2425	0.0121	0.4069
0.04	-1.2424	0.0162	0.4110
0.05	-1.2422	0.0203	0.4162
0.06	-1.2420	0.0245	0.4227
0.07	-1.2417	0.0288	0.4303
0.08	-1.2414	0.0331	0.4392
0.09	-1.2410	0.0376	0.4494
0.10	-1.2406	0.0421	0.4608
0.11	-1.2402	0.0468	0.4736
0.12	-1.2397	0.0516	0.4877
0.13	-1.2392	0.0566	0.5032
0.14	-1.2386	0.0617	0.5201
0.15	-1.2379	0.0670	0.5386
0.16	-1.2372	0.0725	0.5585
0.17	-1.2365	0.0782	0.5801
0.18	-1.2357	0.0841	0.6033
0.19	-1.2348	0.0902	0.6282
0.20	-1.2339	0.0966	0.6549
0.21	-1.2329	0.1033	0.6834
0.22	-1.2318	0.1103	0.7139
0.23	-1.2307	0.1176	0.7463
0.24	-1.2295	0.1253	0.7809
0.25	-1.2282	0.1332	0.8176
0.26	-1.2268	0.1416	0.8567
0.27	-1.2253	0.1504	0.8981
0.28	-1.2238	0.1596	0.9420
0.29	-1.2221	0.1692	0.9885
0.30	-1.2204	0.1794	1.0378
0.31	-1.2186	0.1900	1.0899
0.32	-1.2166	0.2012	1.1450
0.33	-1.2145	0.2129	1.2032
0.34	-1.2123	0.2253	1.2647
0.35	-1.2100	0.2382	1.3296
0.36	-1.2076	0.2519	1.3982
0.37	-1.2050	0.2662	1.4705
0.38	-1.2022	0.2813	1.5467
0.39	-1.1994	0.2972	1.6271
0.40	-1.1963	0.3139	1.7117
0.41	-1.1931	0.3314	1.8009
0.42	-1.1897	0.3499	1.8948
0.43	-1.1861	0.3694	1.9936
0.44	-1.1823	0.3898	2.0976
0.45	-1.1783	0.4113	2.2070
0.46	-1.1741	0.4340	2.3220
0.47	-1.1696	0.4578	2.4429
0.48	-1.1649	0.4829	2.5699
0.49	-1.1599	0.5092	2.7033
0.50	-1.1547	0.5370	2.8433

ξ	Φ	Φ'	Φ''
0.50	-1.1547	0.5370	2.8433
0.51	-1.1492	0.5661	2.9903
0.52	-1.1434	0.5968	3.1445
0.53	-1.1373	0.6291	3.3061
0.54	-1.1308	0.6630	3.4756
0.55	-1.1240	0.6986	3.6532
0.56	-1.1168	0.7361	3.8391
0.57	-1.1093	0.7754	4.0336
0.58	-1.1013	0.8168	4.2372
0.59	-1.0930	0.8602	4.4500
0.60	-1.0841	0.9058	4.6723
0.61	-1.0748	0.9537	4.9045
0.62	-1.0651	1.0040	5.1467
0.63	-1.0548	1.0567	5.3993
0.64	-1.0439	1.1120	5.6624
0.65	-1.0325	1.1700	5.9364
0.66	-1.0205	1.2308	6.2214
0.67	-1.0079	1.2945	6.5175
0.68	-0.9946	1.3612	6.8250
0.69	-0.9807	1.4311	7.1439
0.70	-0.9660	1.5041	7.4742
0.71	-0.9506	1.5806	7.8160
0.72	-0.9344	1.6605	8.1692
0.73	-0.9174	1.7440	8.5336
0.74	-0.8995	1.8312	8.9091
0.75	-0.8808	1.9223	9.2953
0.76	-0.8611	2.0172	9.6919
0.77	-0.8404	2.1162	10.098
0.78	-0.8188	2.2192	10.514
0.79	-0.7960	2.3265	10.938
0.80	-0.7722	2.4380	11.370
0.81	-0.7473	2.5539	11.808
0.82	-0.7211	2.6742	12.252
0.83	-0.6938	2.7990	12.699
0.84	-0.6652	2.9282	13.149
0.85	-0 6352	3.0620	13.599
0.86	-0.6039	3.2002	14.047
0.87	-0.5712	3.3429	14.491
0.88	-0.5371	3.4900	14.928
0.89	-0.5014	3.6414	15.356
0.90	-0.4642	3.7970	15.771
0.91	-0.4255	3.9567	16.169
0.92	-0.3851	4.1203	16.546
0.93	-0.3431	4.2875	16.900
0.94	-0.2994	4.4581	17.223
0.95	-0.2539	4.6318	17.513
0.96	-0.2067	4.8082	17.764
0.97	-0.1577	4.9869	17.969
0.98	-0.1070	5.1673	18.123
0.99	-0.0544	5.3490	18.220
1.00	0.0000	5.5312	18.317

$\lambda = 3.60$

$\Delta\Pi = 1.5400$

ξ	Φ	Φ'	Φ''
0.00	-1.2304	0.0000	0.3317
0.01	-1.2304	0.0033	0.3322
0.02	-1.2304	0.0066	0.3338
0.03	-1.2303	0.0100	0.3365
0.04	-1.2302	0.0134	0.3402
0.05	-1.2300	0.0168	0.3450
0.06	-1.2298	0.0203	0.3509
0.07	-1.2296	0.0238	0.3580
0.08	-1.2294	0.0275	0.3661
0.09	-1.2291	0.0312	0.3755
0.10	-1.2287	0.0350	0.3860
0.11	-1.2284	0.0389	0.3978
0.12	-1.2280	0.0429	0.4108
0.13	-1.2275	0.0471	0.4252
0.14	-1.2270	0.0514	0.4409
0.15	-1.2265	0.0559	0.4580
0.16	-1.2259	0.0606	0.4765
0.17	-1.2253	0.0655	0.4965
0.18	-1.2246	0.0705	0.5181
0.19	-1.2239	0.0758	0.5414
0.20	-1.2231	0.0814	0.5663
0.21	-1.2222	0.0872	0.5931
0.22	-1.2213	0.0933	0.6217
0.23	-1.2204	0.0996	0.6522
0.24	-1.2193	0.1063	0.6848
0.25	-1.2182	0.1133	0.7195
0.26	-1.2171	0.1207	0.7565
0.27	-1.2158	0.1285	0.7958
0.28	-1.2145	0.1366	0.8376
0.29	-1.2131	0.1452	0.8819
0.30	-1.2116	0.1543	0.9290
0.31	-1.2100	0.1638	0.9790
0.32	-1.2083	0.1739	1.0320
0.33	-1.2065	0.1845	1.0881
0.34	-1.2046	0.1957	1.1475
0.35	-1.2026	0.2075	1.2104
0.36	-1.2005	0.2199	1.2770
0.37	-1.1982	0.2330	1.3475
0.38	-1.1958	0.2469	1.4220
0.39	-1.1933	0.2615	1.5007
0.40	-1.1906	0.2769	1.5840
0.41	-1.1877	0.2932	1.6719
0.42	-1.1847	0.3104	1.7647
0.43	-1.1815	0.3285	1.8628
0.44	-1.1782	0.3476	1.9662
0.45	-1.1746	0.3678	2.0754
0.46	-1.1708	0.3892	2.1905
0.47	-1.1668	0.4117	2.3119
0.48	-1.1626	0.4355	2.4398
0.49	-1.1581	0.4605	2.5747
0.50	-1.1534	0.4870	2.7167

ξ	Φ	Φ'	Φ''
0.50	-1.1534	0.4870	2.7167
0.51	-1.1484	0.5149	2.8662
0.52	-1.1431	0.5443	3.0236
0.53	-1.1375	0.5754	3.1892
0.54	-1.1316	0.6082	3.3633
0.55	-1.1253	0.6427	3.5463
0.56	-1.1187	0.6791	3.7386
0.57	-1.1117	0.7175	3.9406
0.58	-1.1044	0.7580	4.1526
0.59	-1.0966	0.8006	4.3750
0.60	-1.0883	0.8456	4.6082
0.61	-1.0797	0.8929	4.8526
0.62	-1.0705	0.9427	5.1084
0.63	-1.0608	0.9951	5.3762
0.64	-1.0506	1.0503	5.6561
0.65	-1.0398	1.1083	5.9486
0.66	-1.0284	1.1693	6.2540
0.67	-1.0164	1.2334	6.5725
0.68	-1.0037	1.3008	6.9043
0.69	-0.9904	1.3716	7.2497
0.70	-0.9763	1.4459	7.6089
0.71	-0.9615	1.5238	7.9819
0.72	-0.9458	1.6056	8.3687
0.73	-0.9294	1.6913	8.7694
0.74	-0.9120	1.7810	9.1838
0.75	-0.8937	1.8750	9.6116
0.76	-0.8745	1.9733	10.053
0.77	-0.8543	2.0761	10.506
0.78	-0.8330	2.1835	10.972
0.79	-0.8106	2.2956	11.449
0.80	-0.7871	2.4125	11.936
0.81	-0.7624	2.5344	12.433
0.82	-0.7364	2.6612	12.937
0.83	-0.7091	2.7932	13.448
0.84	-0.6805	2.9302	13.963
0.85	-0.6505	3.0724	14.480
0.86	-0.6191	3.2198	14.998
0.87	-0.5861	3.3724	15.512
0.88	-0.5516	3.5300	16.020
0.89	-0.5155	3.6927	16.519
0.90	-0.4778	3.8603	17.005
0.91	-0.4383	4.0327	17.473
0.92	-0.3971	4.2097	17.918
0.93	-0.3541	4.3910	18.336
0.94	-0.3093	4.5762	18.720
0.95	-0.2626	4.7652	19.065
0.96	-0.2140	4.9573	19.364
0.97	-0.1635	5.1522	19.611
0.98	-0.1110	5.3492	19.796
0.99	-0.0565	5.5478	19.913
1.00	0.0000	5.7469	20.030

$\lambda = 3.80$

$\Delta\Pi = 1.5051$

ξ	Φ	Φ'	Φ''
0.00	-1.2191	0.0000	0.2728
0.01	-1.2191	0.0027	0.2733
0.02	-1.2190	0.0055	0.2747
0.03	-1.2190	0.0082	0.2771
0.04	-1.2189	0.0110	0.2805
0.05	-1.2188	0.0138	0.2849
0.06	-1.2186	0.0167	0.2903
0.07	-1.2184	0.0197	0.2967
0.08	-1.2182	0.0227	0.3041
0.09	-1.2180	0.0257	0.3127
0.10	-1.2177	0.0289	0.3223
0.11	-1.2174	0.0322	0.3330
0.12	-1.2171	0.0356	0.3450
0.13	-1.2167	0.0391	0.3581
0.14	-1.2163	0.0428	0.3725
0.15	-1.2158	0.0466	0.3882
0.16	-1.2153	0.0505	0.4052
0.17	-1.2148	0.0547	0.4237
0.18	-1.2142	0.0590	0.4437
0.19	-1.2136	0.0635	0.4652
0.20	-1.2130	0.0683	0.4883
0.21	-1.2123	0.0733	0.5131
0.22	-1.2115	0.0786	0.5397
0.23	-1.2107	0.0841	0.5682
0.24	-1.2098	0.0900	0.5987
0.25	-1.2089	0.0961	0.6312
0.26	-1.2079	0.1026	0.6659
0.27	-1.2068	0.1094	0.7029
0.28	-1.2057	0.1167	0.7423
0.29	-1.2045	0.1243	0.7843
0.30	-1.2032	0.1324	0.8289
0.31	-1.2019	0.1409	0.8764
0.32	-1.2004	0.1499	0.9269
0.33	-1.1989	0.1594	0.9805
0.34	-1.1972	0.1695	1.0375
0.35	-1.1955	0.1802	1.0979
0.36	-1.1936	0.1915	1.1621
0.37	-1.1916	0.2035	1.2302
0.38	-1.1895	0.2161	1.3024
0.39	-1.1873	0.2295	1.3789
0.40	-1.1850	0.2437	1.4601
0.41	-1.1824	0.2588	1.5460
0.42	-1.1798	0.2747	1.6371
0.43	-1.1770	0.2915	1.7335
0.44	-1.1740	0.3094	1.8356
0.45	-1.1708	0.3283	1.9436
0.46	-1.1674	0.3483	2.0579
0.47	-1.1638	0.3695	2.1788
0.48	-1.1600	0.3919	2.3066
0.49	-1.1560	0.4156	2.4418
0.50	-1.1517	0.4408	2.5846

ξ	Φ	Φ'	Φ''
0.50	-1.1517	0.4408	2.5846
0.51	-1.1471	0.4674	2.7354
0.52	-1.1423	0.4955	2.8947
0.53	-1.1372	0.5253	3.0628
0.54	-1.1318	0.5568	3.2402
0.55	-1.1261	0.5902	3.4273
0.56	-1.1200	0.6254	3.6246
0.57	-1.1136	0.6627	3.8324
0.58	-1.1068	0.7021	4.0514
0.59	-1.0995	0.7438	4.2818
0.60	-1.0919	0.7878	4.5243
0.61	-1.0838	0.8343	4.7793
0.62	-1.0752	0.8835	5.0472
0.63	-1.0661	0.9354	5.3286
0.64	-1.0565	0.9901	5.6238
0.65	-1.0463	1.0479	5.9334
0.66	-1.0355	1.1089	6.2577
0.67	-1.0241	1.1731	6.5972
0.68	-1.0121	1.2409	6.9522
0.69	-0.9993	1.3123	7.3231
0.70	-0.9858	1.3874	7.7102
0.71	-0.9716	1.4665	8.1137
0.72	-0.9565	1.5498	8.5337
0.73	-0.9406	1.6373	8.9703
0.74	-0.9238	1.7293	9.4235
0.75	-0.9060	1.8258	9.8933
0.76	-0.8872	1.9272	10.379
0.77	-0.8675	2.0335	10.881
0.78	-0.8466	2.1449	11.398
0.79	-0.8246	2.2615	11.930
0.80	-0.8013	2.3836	12.475
0.81	-0.7769	2.5111	13.033
0.82	-0.7511	2.6443	13.601
0.83	-0.7240	2.7832	14.179
0.84	-0.6955	2.9279	14.764
0.85	-0.6654	3.0785	15.354
0.86	-0.6339	3.2350	15.946
0.87	-0.6007	3.3974	16.536
0.88	-0.5659	3.5657	17.122
0.89	-0.5294	3.7398	17.699
0.90	-0.4911	3.9196	18.263
0.91	-0.4510	4.1049	18.808
0.92	-0.4090	4.2956	19.328
0.93	-0.3651	4.4914	19.819
0.94	-0.3192	4.6918	20.271
0.95	-0.2713	4.8966	20.678
0.96	-0.2213	5.1051	21.033
0.97	-0.1692	5.3169	21.325
0.98	-0.1149	5.5312	21.546
0.99	-0.0586	5.7474	21.685
1.00	0.0000	5.9643	21.825

$\lambda = 4.0$

$\Delta\Pi = 1.4747$

ξ	Φ	Φ'	Φ''
0.00	-1.2086	0.0000	0.2235
0.01	-1.2086	0.0022	0.2240
0.02	-1.2086	0.0045	0.2253
0.03	-1.2085	0.0067	0.2274
0.04	-1.2084	0.0090	0.2305
0.05	-1.2083	0.0114	0.2344
0.06	-1.2082	0.0137	0.2393
0.07	-1.2080	0.0162	0.2451
0.08	-1.2079	0.0186	0.2518
0.09	-1.2077	0.0212	0.2595
0.10	-1.2074	0.0238	0.2682
0.11	-1.2072	0.0266	0.2780
0.12	-1.2069	0.0294	0.2888
0.13	-1.2066	0.0323	0.3007
0.14	-1.2063	0.0354	0.3138
0.15	-1.2059	0.0386	0.3281
0.16	-1.2055	0.0420	0.3437
0.17	-1.2051	0.0455	0.3606
0.18	-1.2046	0.0492	0.3788
0.19	-1.2041	0.0531	0.3986
0.20	-1.2035	0.0572	0.4198
0.21	-1.2029	0.0615	0.4427
0.22	-1.2023	0.0660	0.4673
0.23	-1.2016	0.0709	0.4936
0.24	-1.2009	0.0759	0.5219
0.25	-1.2001	0.0813	0.5521
0.26	-1.1993	0.0870	0.5844
0.27	-1.1984	0.0930	0.6190
0.28	-1.1974	0.0994	0.6559
0.29	-1.1964	0.1061	0.6953
0.30	-1.1953	0.1133	0.7373
0.31	-1.1941	0.1209	0.7821
0.32	-1.1929	0.1289	0.8298
0.33	-1.1915	0.1375	0.8807
0.34	-1.1901	0.1466	0.9349
0.35	-1.1886	0.1562	0.9926
0.36	-1.1870	0.1664	1.0539
0.37	-1.1853	0.1773	1.1192
0.38	-1.1834	0.1889	1.1887
0.39	-1.1815	0.2011	1.2625
0.40	-1.1794	0.2141	1.3410
0.41	-1.1772	0.2280	1.4244
0.42	-1.1749	0.2426	1.5131
0.43	-1.1724	0.2582	1.6072
0.44	-1.1697	0.2748	1.7072
0.45	-1.1669	0.2924	1.8133
0.46	-1.1638	0.3111	1.9259
0.47	-1.1606	0.3310	2.0454
0.48	-1.1572	0.3521	2.1722
0.49	-1.1536	0.3744	2.3066
0.50	-1.1497	0.3982	2.4491

ξ	Φ	Φ'	Φ''
0.50	-1.1497	0.3982	2.4491
0.51	-1.1456	0.4235	2.6001
0.52	-1.1413	0.4503	2.7601
0.53	-1.1366	0.4787	2.9295
0.54	-1.1317	0.5089	3.1088
0.55	-1.1264	0.5409	3.2986
0.56	-1.1209	0.5749	3.4994
0.57	-1.1149	0.6110	3.7117
0.58	-1.1086	0.6492	3.9360
0.59	-1.1020	0.6898	4.1730
0.60	-1.0949	0.7328	4.4232
0.61	-1.0873	0.7783	4.6871
0.62	-1.0793	0.8266	4.9655
0.63	-1.0708	0.8777	5.2588
0.64	-1.0617	0.9318	5.5677
0.65	-1.0521	0.9891	5.8927
0.66	-1.0420	1.0498	6.2345
0.67	-1.0311	1.1139	6.5935
0.68	-1.0197	1.1817	6.9703
0.69	-1.0075	1.2534	7.3654
0.70	-0.9946	1.3291	7.7793
0.71	-0.9809	1.4091	8.2122
0.72	-0.9664	1.4935	8.6645
0.73	-0.9511	1.5825	9.1365
0.74	-0.9348	1.6763	9.6283
0.75	-0.9175	1.7751	10.140
0.76	-0.8993	1.8792	10.671
0.77	-0.8799	1.9887	11.222
0.78	-0.8595	2.1037	11.791
0.79	-0.8379	2.2246	12.379
0.80	-0.8150	2.3514	12.984
0.81	-0.7908	2.4843	13.605
0.82	-0.7653	2.6236	14.241
0.83	-0.7384	2.7692	14.889
0.84	-0.7099	2.9214	15.548
0.85	-0.6799	3.0802	16.215
0.86	-0.6483	3.2457	16.887
0.87	-0.6150	3.4180	17.560
0.88	-0.5800	3.5969	18.230
0.89	-0.5431	3.7825	18.892
0.90	-0.5043	3.9747	19.541
0.91	-0.4636	4.1732	20.171
0.92	-0.4209	4.3780	20.775
0.93	-0.3760	4.5886	21.345
0.94	-0.3291	4.8047	21.873
0.95	-0.2799	5.0258	22.351
0.96	-0.2286	5.2514	22.767
0.97	-0.1749	5.4808	23.112
0.98	-0.1190	5.7132	23.373
0.99	-0.0607	5.9477	23.538
1.00	0.0000	6.1831	23.703

$\lambda = 4.50$

$\Delta\Pi = 1.4125$

ξ	Φ	Φ'	Φ''
0.00	-1.1857	0.0000	0.1339
0.01	-1.1857	0.0013	0.1343
0.02	-1.1857	0.0027	0.1352
0.03	-1.1856	0.0040	0.1369
0.04	-1.1856	0.0054	0.1391
0.05	-1.1855	0.0068	0.1421
0.06	-1.1854	0.0083	0.1457
0.07	-1.1854	0.0098	0.1500
0.08	-1.1853	0.0113	0.1551
0.09	-1.1851	0.0129	0.1609
0.10	-1.1850	0.0145	0.1675
0.11	-1.1848	0.0162	0.1749
0.12	-1.1847	0.0180	0.1831
0.13	-1.1845	0.0199	0.1922
0.14	-1.1843	0.0218	0.2022
0.15	-1.1840	0.0239	0.2132
0.16	-1.1838	0.0261	0.2252
0.17	-1.1835	0.0284	0.2383
0.18	-1.1832	0.0309	0.2525
0.19	-1.1829	0.0335	0.2680
0.20	-1.1826	0.0363	0.2847
0.21	-1.1822	0.0392	0.3028
0.22	-1.1818	0.0423	0.3223
0.23	-1.1813	0.0456	0.3434
0.24	-1.1809	0.0492	0.3661
0.25	-1.1803	0.0530	0.3905
0.26	-1.1798	0.0570	0.4169
0.27	-1.1792	0.0613	0.4451
0.28	-1.1786	0.0659	0.4756
0.29	-1.1779	0.0708	0.5082
0.30	-1.1772	0.0761	0.5433
0.31	-1.1764	0.0817	0.5810
0.32	-1.1755	0.0877	0.6214
0.33	-1.1746	0.0942	0.6647
0.34	-1.1736	0.1010	0.7112
0.35	-1.1726	0.1084	0.7610
0.36	-1.1715	0.1163	0.8144
0.37	-1.1703	0.1247	0.8716
0.38	-1.1690	0.1337	0.9329
0.39	-1.1676	0.1434	0.9985
0.40	-1.1661	0.1537	1.0688
0.41	-1.1645	0.1648	1.1440
0.42	-1.1628	0.1766	1.2246
0.43	-1.1610	0.1893	1.3108
0.44	-1.1590	0.2029	1.4030
0.45	-1.1569	0.2174	1.5017
0.46	-1.1547	0.2330	1.6072
0.47	-1.1523	0.2496	1.7200
0.48	-1.1497	0.2674	1.8407
0.49	-1.1469	0.2864	1.9696
0.50	-1.1440	0.3068	2.1073

ξ	Φ	Φ'	Φ''
0.50	-1.1440	0.3068	2.1073
0.51	-1.1408	0.3286	2.2545
0.52	-1.1374	0.3520	2.4116
0.53	-1.1337	0.3769	2.5794
0.54	-1.1298	0.4036	2.7585
0.55	-1.1257	0.4322	2.9496
0.56	-1.1212	0.4627	3.1533
0.57	-1.1164	0.4953	3.3706
0.58	-1.1113	0.5301	3.6021
0.59	-1.1058	0.5674	3.8487
0.60	-1.0999	0.6072	4.1113
0.61	-1.0937	0.6497	4.3907
0.62	-1.0870	0.6951	4.6879
0.63	-1.0798	0.7436	5.0038
0.64	-1.0721	0.7953	5.3393
0.65	-1.0639	0.8505	5.6955
0.66	-1.0551	0.9093	6.0734
0.67	-1.0457	0.9720	6.4739
0.68	-1.0356	1.0389	6.8979
0.69	-1.0249	1.1101	7.3466
0.70	-1.0134	1.1860	7.8208
0.71	-1.0012	1.2667	8.3214
0.72	-0.9881	1.3525	8.8492
0.73	-0.9741	1.4438	9.4051
0.74	-0.9592	1.5408	9.9896
0.75	-0.9433	1.6437	10.603
0.76	-0.9263	1.7530	11.247
0.77	-0.9083	1.8688	11.919
0.78	-0.8890	1.9915	12.622
0.79	-0.8684	2.1214	13.354
0.80	-0.8465	2.2587	14.115
0.81	-0.8233	2.4038	14.903
0.82	-0.7985	2.5569	15.717
0.83	-0.7721	2.7183	16.556
0.84	-0.7441	2.8882	17.416
0.85	-0.7143	3.0667	18.295
0.86	-0.6828	3.2541	19.189
0.87	-0.6493	3.4505	20.092
0.88	-0.6138	3.6560	21.000
0.89	-0.5761	3.8705	21.906
0.90	-0.5363	4.0941	22.802
0.91	-0.4943	4.3265	23.679
0.92	-0.4498	4.5675	24.527
0.93	-0.4029	4.8168	25.336
0.94	-0.3535	5.0740	26.091
0.95	-0.3014	5.3383	26.779
0.96	-0.2467	5.6091	27.383
0.97	-0.1893	5.8855	27.888
0.98	-0.1290	6.1663	28.273
0.99	-0.0659	6.4502	28.518
1.00	0.0000	6.7354	28.764

$\lambda = 5.0$

$\Delta\Pi = 1.3646$

ξ	Φ	Φ'	Φ''
0.00	-1.1668	0.0000	0.0789
0.01	-1.1668	0.0008	0.0791
0.02	-1.1668	0.0016	0.0798
0.03	-1.1668	0.0024	0.0809
0.04	-1.1667	0.0032	0.0826
0.05	-1.1667	0.0040	0.0847
0.06	-1.1666	0.0049	0.0873
0.07	-1.1666	0.0058	0.0904
0.08	-1.1665	0.0067	0.0941
0.09	-1.1665	0.0077	0.0983
0.10	-1.1664	0.0087	0.1031
0.11	-1.1663	0.0097	0.1084
0.12	-1.1662	0.0109	0.1145
0.13	-1.1661	0.0120	0.1211
0.14	-1.1659	0.0133	0.1285
0.15	-1.1658	0.0146	0.1367
0.16	-1.1656	0.0160	0.1456
0.17	-1.1655	0.0175	0.1554
0.18	-1.1653	0.0191	0.1661
0.19	-1.1651	0.0208	0.1777
0.20	-1.1649	0.0227	0.1904
0.21	-1.1646	0.0247	0.2043
0.22	-1.1644	0.0268	0.2193
0.23	-1.1641	0.0291	0.2355
0.24	-1.1638	0.0315	0.2532
0.25	-1.1635	0.0341	0.2723
0.26	-1.1631	0.0370	0.2930
0.27	-1.1627	0.0400	0.3154
0.28	-1.1623	0.0433	0.3396
0.29	-1.1619	0.0468	0.3658
0.30	-1.1614	0.0506	0.3942
0.31	-1.1609	0.0547	0.4248
0.32	-1.1603	0.0591	0.4578
0.33	-1.1597	0.0639	0.4935
0.34	-1.1590	0.0690	0.5321
0.35	-1.1583	0.0745	0.5737
0.36	-1.1575	0.0805	0.6187
0.37	-1.1567	0.0869	0.6671
0.38	-1.1558	0.0938	0.7195
0.39	-1.1548	0.1013	0.7759
0.40	-1.1538	0.1094	0.8368
0.41	-1.1526	0.1181	0.9025
0.42	-1.1514	0.1275	0.9733
0.43	-1.1501	0.1376	1.0496
0.44	-1.1487	0.1485	1.1319
0.45	-1.1471	0.1602	1.2207
0.46	-1.1454	0.1729	1.3163
0.47	-1.1437	0.1866	1.4193
0.48	-1.1417	0.2014	1.5303
0.49	-1.1396	0.2173	1.6498
0.50	-1.1374	0.2344	1.7785

ξ	Φ	Φ'	Φ''
0.50	-1.1374	0.2344	1.7785
0.51	-1.1349	0.2529	1.9171
0.52	-1.1323	0.2728	2.0663
0.53	-1.1295	0.2943	2.2268
0.54	-1.1264	0.3174	2.3995
0.55	-1.1231	0.3423	2.5853
0.56	-1.1196	0.3692	2.7850
0.57	-1.1157	0.3981	2.9996
0.58	-1.1116	0.4292	3.2303
0.59	-1.1072	0.4628	3.4780
0.60	-1.1024	0.4989	3.7439
0.61	-1.0972	0.5377	4.0292
0.62	-1.0916	0.5796	4.3353
0.63	-1.0856	0.6246	4.6634
0.64	-1.0791	0.6730	5.0149
0.65	-1.0721	0.7250	5.3912
0.66	-1.0646	0.7809	5.7939
0.67	-1.0565	0.8410	6.2243
0.68	-1.0478	0.9055	6.6842
0.69	-1.0384	0.9748	7.1751
0.70	-1.0283	1.0492	7.6984
0.71	-1.0174	1.1290	8.2559
0.72	-1.0057	1.2145	8.8491
0.73	-0.9931	1.3061	9.4794
0.74	-0.9796	1.4043	10.148
0.75	-0.9650	1.5093	10.857
0.76	-0.9494	1.6216	11.607
0.77	-0.9326	1.7417	12.398
0.78	-0.9146	1.8698	13.233
0.79	-0.8952	2.0065	14.110
0.80	-0.8744	2.1522	15.030
0.81	-0.8522	2.3073	15.993
0.82	-0.8283	2.4723	16.997
0.83	-0.8027	2.6475	18.041
0.84	-0.7754	2.8333	19.122
0.85	-0.7461	3.0301	20.236
0.86	-0.7147	3.2381	21.380
0.87	-0.6813	3.4578	22.548
0.88	-0.6456	3.6892	23.732
0.89	-0.6075	3.9325	24.925
0.90	-0.5669	4.1877	26.115
0.91	-0.5238	4.4547	27.291
0.92	-0.4779	4.7334	28.439
0.93	-0.4291	5.0233	29.542
0.94	-0.3774	5.3239	30.582
0.95	-0.3226	5.6345	31.537
0.96	-0.2647	5.9541	32.383
0.97	-0.2035	6.2815	33.095
0.98	-0.1391	6.6152	33.642
0.99	-0.0712	6.9533	33.993
1.00	0.0000	7.2933	34.344

$\lambda = 5.50$

$\Delta\Pi = 1.3265$

ξ	Φ	Φ'	Φ''
0.00	-1.1511	0.0000	0.0457
0.01	-1.1511	0.0005	0.0459
0.02	-1.1511	0.0009	0.0464
0.03	-1.1511	0.0014	0.0472
0.04	-1.1511	0.0019	0.0483
0.05	-1.1510	0.0024	0.0498
0.06	-1.1510	0.0029	0.0516
0.07	-1.1510	0.0034	0.0538
0.08	-1.1509	0.0039	0.0564
0.09	-1.1509	0.0045	0.0593
0.10	-1.1509	0.0051	0.0627
0.11	-1.1508	0.0058	0.0665
0.12	-1.1507	0.0065	0.0707
0.13	-1.1507	0.0072	0.0755
0.14	-1.1506	0.0080	0.0808
0.15	-1.1505	0.0088	0.0866
0.16	-1.1504	0.0097	0.0931
0.17	-1.1503	0.0107	0.1002
0.18	-1.1502	0.0117	0.1080
0.19	-1.1501	0.0128	0.1166
0.20	-1.1499	0.0141	0.1259
0.21	-1.1498	0.0154	0.1362
0.22	-1.1496	0.0168	0.1474
0.23	-1.1495	0.0183	0.1596
0.24	-1.1493	0.0200	0.1729
0.25	-1.1491	0.0218	0.1875
0.26	-1.1488	0.0237	0.2033
0.27	-1.1486	0.0259	0.2206
0.28	-1.1483	0.0282	0.2394
0.29	-1.1480	0.0306	0.2598
0.30	-1.1477	0.0334	0.2821
0.31	-1.1474	0.0363	0.3063
0.32	-1.1470	0.0395	0.3327
0.33	-1.1466	0.0430	0.3613
0.34	-1.1461	0.0467	0.3925
0.35	-1.1456	0.0508	0.4264
0.36	-1.1451	0.0553	0.4632
0.37	-1.1445	0.0601	0.5032
0.38	-1.1439	0.0654	0.5467
0.39	-1.1432	0.0711	0.5940
0.40	-1.1425	0.0773	0.6454
0.41	-1.1417	0.0840	0.7012
0.42	-1.1408	0.0913	0.7618
0.43	-1.1399	0.0993	0.8276
0.44	-1.1388	0.1079	0.8991
0.45	-1.1377	0.1173	0.9768
0.46	-1.1365	0.1275	1.0611
0.47	-1.1351	0.1385	1.1526
0.48	-1.1337	0.1505	1.2520
0.49	-1.1321	0.1636	1.3599
0.50	-1.1304	0.1778	1.4769

ξ	Φ	Φ'	Φ''
0.50	-1.1304	0.1778	1.4769
0.51	-1.1286	0.1932	1.6038
0.52	-1.1266	0.2099	1.7416
0.53	-1.1244	0.2281	1.8909
0.54	-1.1220	0.2478	2.0529
0.55	-1.1194	0.2692	2.2284
0.56	-1.1166	0.2924	2.4187
0.57	-1.1136	0.3177	2.6248
0.58	-1.1103	0.3450	2.8481
0.59	-1.1067	0.3747	3.0898
0.60	-1.1028	0.4069	3.3514
0.61	-1.0985	0.4419	3.6344
0.62	-1.0939	0.4797	3.9405
0.63	-1.0889	0.5208	4.2713
0.64	-1.0835	0.5653	4.6287
0.65	-1.0776	0.6135	5.0145
0.66	-1.0713	0.6657	5.4309
0.67	-1.0643	0.7223	5.8798
0.68	-1.0568	0.7835	6.3635
0.69	-1.0487	0.8497	6.8843
0.70	-1.0398	0.9214	7.4445
0.71	-1.0302	0.9988	8.0464
0.72	-1.0198	1.0825	8.6925
0.73	-1.0086	1.1729	9.3852
0.74	-0.9964	1.2705	10.127
0.75	-0.9832	1.3757	10.920
0.76	-0.9689	1.4891	11.767
0.77	-0.9534	1.6113	12.669
0.78	-0.9366	1.7428	13.628
0.79	-0.9185	1.8842	14.647
0.80	-0.8990	2.0360	15.728
0.81	-0.8778	2.1990	16.863
0.82	-0.8550	2.3736	18.062
0.83	-0.8303	2.5605	19.320
0.84	-0.8038	2.7603	20.635
0.85	-0.7751	2.9735	22.004
0.86	-0.7443	3.2006	23.423
0.87	-0.7111	3.4422	24.884
0.88	-0.6754	3.6985	26.380
0.89	-0.6371	3.9699	27.901
0.90	-0.5960	4.2566	29.433
0.91	-0.5520	4.5585	30.961
0.92	-0.5049	4.8757	32.466
0.93	-0.4545	5.2076	33.925
0.94	-0.4007	5.5538	35.313
0.95	-0.3434	5.9134	36.598
0.96	-0.2825	6.2851	37.746
0.97	-0.2177	6.6674	38.719
0.98	-0.1491	7.0584	39.473
0.99	-0.0766	7.4555	39.959
1.00	0.0000	7.8551	40.446

$\lambda = 6.0$

$\Delta\Pi = 1.2956$

ξ	Φ	Φ'	Φ''
0.00	-1.1379	0.0000	0.0262
0.01	-1.1379	0.0003	0.0263
0.02	-1.1379	0.0005	0.0266
0.03	-1.1379	0.0008	0.0272
0.04	-1.1379	0.0011	0.0279
0.05	-1.1379	0.0014	0.0289
0.06	-1.1379	0.0017	0.0302
0.07	-1.1379	0.0020	0.0317
0.08	-1.1379	0.0023	0.0334
0.09	-1.1378	0.0026	0.0354
0.10	-1.1378	0.0030	0.0377
0.11	-1.1378	0.0034	0.0403
0.12	-1.1377	0.0038	0.0433
0.13	-1.1377	0.0043	0.0466
0.14	-1.1376	0.0047	0.0503
0.15	-1.1376	0.0053	0.0544
0.16	-1.1375	0.0058	0.0589
0.17	-1.1375	0.0064	0.0640
0.18	-1.1374	0.0071	0.0695
0.19	-1.1373	0.0078	0.0757
0.20	-1.1373	0.0086	0.0824
0.21	-1.1372	0.0095	0.0899
0.22	-1.1371	0.0104	0.0980
0.23	-1.1370	0.0115	0.1070
0.24	-1.1368	0.0126	0.1169
0.25	-1.1367	0.0138	0.1277
0.26	-1.1366	0.0151	0.1395
0.27	-1.1364	0.0166	0.1525
0.28	-1.1362	0.0182	0.1668
0.29	-1.1360	0.0199	0.1824
0.30	-1.1358	0.0218	0.1995
0.31	-1.1356	0.0239	0.2183
0.32	-1.1354	0.0262	0.2388
0.33	-1.1351	0.0287	0.2613
0.34	-1.1348	0.0315	0.2860
0.35	-1.1345	0.0345	0.3129
0.36	-1.1341	0.0377	0.3425
0.37	-1.1337	0.0413	0.3748
0.38	-1.1333	0.0452	0.4102
0.39	-1.1328	0.0495	0.4489
0.40	-1.1323	0.0542	0.4913
0.41	-1.1317	0.0594	0.5377
0.42	-1.1311	0.0650	0.5885
0.43	-1.1304	0.0712	0.6440
0.44	-1.1297	0.0779	0.7048
0.45	-1.1288	0.0853	0.7713
0.46	-1.1280	0.0934	0.8440
0.47	-1.1270	0.1022	0.9236
0.48	-1.1259	0.1119	1.0106
0.49	-1.1247	0.1225	1.1057
0.50	-1.1235	0.1340	1.2097

ξ	Φ	Φ'	Φ''
0.50	-1.1235	0.1340	1.2097
0.51	-1.1221	0.1467	1.3234
0.52	-1.1205	0.1606	1.4477
0.53	-1.1189	0.1757	1.5835
0.54	-1.1170	0.1923	1.7319
0.55	-1.1150	0.2104	1.8940
0.56	-1.1128	0.2303	2.0711
0.57	-1.1104	0.2519	2.2644
0.58	-1.1078	0.2756	2.4754
0.59	-1.1049	0.3015	2.7057
0.60	-1.1017	0.3298	2.9570
0.61	-1.0983	0.3608	3.2310
0.62	-1.0945	0.3946	3.5297
0.63	-1.0904	0.4315	3.8552
0.64	-1.0859	0.4718	4.2097
0.65	-1.0810	0.5159	4.5956
0.66	-1.0756	0.5639	5.0154
0.67	-1.0697	0.6164	5.4720
0.68	-1.0632	0.6736	5.9680
0.69	-1.0562	0.7359	6.5066
0.70	-1.0485	0.8039	7.0909
0.71	-1.0401	0.8780	7.7242
0.72	-1.0310	0.9587	8.4099
0.73	-1.0210	1.0465	9.1516
0.74	-1.0100	1.1420	9.9527
0.75	-0.9981	1.2458	10.817
0.76	-0.9851	1.3587	11.748
0.77	-0.9709	1.4811	12.749
0.78	-0.9555	1.6140	13.823
0.79	-0.9387	1.7580	14.974
0.80	-0.9203	1.9139	16.204
0.81	-0.9004	2.0825	17.514
0.82	-0.8787	2.2646	18.907
0.83	-0.8551	2.4610	20.383
0.84	-0.8295	2.6726	21.940
0.85	-0.8016	2.9002	23.576
0.86	-0.7715	3.1445	25.288
0.87	-0.7388	3.4063	27.068
0.88	-0.7033	3.6862	28.907
0.89	-0.6650	3.9847	30.795
0.90	-0.6236	4.3023	32.715
0.91	-0.5790	4.6391	34.647
0.92	-0.5309	4.9951	36.567
0.93	-0.4791	5.3702	38.446
0.94	-0.4235	5.7637	40.249
0.95	-0.3638	6.1746	41.933
0.96	-0.3000	6.6015	43.450
0.97	-0.2318	7.0425	44.746
0.98	-0.1591	7.4950	45.758
0.99	-0.0819	7.9559	46.415
1.00	0.0000	8.4200	47.073

$\lambda = 6.50$

$\Delta\Pi = 1.2701$

ξ	Φ	Φ'	Φ''
0.00	-1.1268	0.0000	0.0148
0.01	-1.1268	0.0001	0.0149
0.02	-1.1268	0.0003	0.0151
0.03	-1.1268	0.0005	0.0155
0.04	-1.1268	0.0006	0.0160
0.05	-1.1268	0.0008	0.0166
0.06	-1.1268	0.0009	0.0175
0.07	-1.1268	0.0011	0.0184
0.08	-1.1268	0 0013	0.0196
0.09	-1.1267	0.0015	0.0210
0.10	-1.1267	0.0017	0.0225
0.11	-1.1267	0.0020	0.0243
0.12	-1.1267	0.0022	0.0263
0.13	-1.1267	0.0025	0.0285
0.14	-1.1266	0.0028	0.0310
0.15	-1.1266	0.0031	0.0339
0.16	-1.1266	0.0035	0.0370
0.17	-1.1265	0.0039	0.0405
0.18	-1.1265	0.0043	0.0444
0.19	-1.1265	0.0047	0.0487
0.20	-1.1264	0.0053	0.0535
0.21	-1.1264	0.0058	0.0588
0.22	-1.1263	0.0064	0.0646
0.23	-1.1262	0.0071	0.0711
0.24	-1.1261	0.0079	0.0782
0.25	-1.1261	0.0087	0.0861
0.26	-1.1260	0.0096	0.0948
0.27	-1.1259	0.0106	0.1044
0.28	-1.1258	0.0117	0.1150
0.29	-1.1256	0.0129	0.1268
0.30	-1.1255	0.0142	0.1397
0.31	-1.1254	0.0157	0.1539
0.32	-1.1252	0.0173	0.1697
0.33	-1.1250	0.0191	0.1870
0.34	-1.1248	0.0211	0.2061
0.35	-1.1246	0.0232	0.2272
0.36	-1.1243	0.0256	0.2505
0.37	-1.1241	0.0282	0.2761
0.38	-1.1238	0.0311	0.3044
0.39	-1.1235	0.0343	0.3356
0.40	-1.1231	0.0379	0.3699
0.41	-1.1227	0.0418	0.4078
0.42	-1.1223	0.0460	0.4495
0.43	-1.1218	0.0508	0.4955
0.44	-1.1212	0.0560	0.5462
0.45	-1.1207	0.0617	0.6021
0.46	-1.1200	0.0681	0.6637
0.47	-1.1193	0.0750	0.7315
0.48	-1.1185	0.0827	0.8063
0.49	-1.1176	0.0912	0.8886
0.50	-1.1167	0.1005	0.9793

ξ	Φ	Φ'	Φ''
0.50	-1.1167	0.1005	0.9793
0.51	-1.1156	0.1108	1.0792
0.52	-1.1145	0.1222	1.1893
0.53	-1.1132	0.1347	1.3104
0.54	-1.1118	0.1484	1.4438
0.55	-1.1102	0.1636	1.5906
0.56	-1.1085	0.1803	1.7521
0.57	-1.1066	0.1987	1.9299
0.58	-1.1045	0.2190	2.1255
0.59	-1.1022	0.2413	2.3406
0.60	-1.0997	0.2659	2.5771
0.61	-1.0969	0.2930	2.8370
0.62	-1.0938	0.3228	3.1226
0.63	-1.0905	0.3556	3.4363
0.64	-1.0867	0.3917	3.7807
0.65	-1.0826	0.4314	4.1587
0.66	-1.0781	0.4750	4.5733
0.67	-1.0731	0.5230	5.0278
0.68	-1.0676	0.5758	5.5257
0.69	-1.0616	0.6338	6.0709
0.70	-1.0550	0.6975	6.6673
0.71	-1.0477	0.7674	7.3192
0.72	-1.0396	0.8442	8.0311
0.73	-1.0308	0.9284	8.8077
0.74	-1.0210	1.0207	9.6540
0.75	-1.0104	1.1218	10.575
0.76	-0.9986	1.2326	11.576
0.77	-0.9857	1.3538	12.661
0.78	-0.9715	1.4862	13.837
0.79	-0.9560	1.6310	15.108
0.80	-0.9389	1.7889	16.479
0.81	-0.9202	1.9611	17.953
0.82	-0.8997	2.1485	19.535
0.83	-0.8772	2.3523	21.225
0.84	-0.8526	2.5736	23.026
0.85	-0.8258	2.8134	24.937
0.86	-0.7964	3.0728	26.954
0.87	-0.7643	3.3530	29.073
0.88	-0.7293	3.6547	31.283
0.89	-0.6912	3.9790	33.572
0.90	-0.6497	4.3265	35.922
0.91	-0.6047	4.6976	38.309
0.92	-0.5558	5.0927	40.704
0.93	-0.5028	5.5116	43.069
0.94	-0.4456	5.9537	45.357
0.95	-0.3838	6.4180	47.514
0.96	-0.3172	6.9030	49.475
0.97	-0.2457	7.4062	51.162
0.98	-0.1691	7.9244	52.489
0.99	-0.0872	8.4537	53.358
1.00	0.0000	8.9872	54.226

$\lambda = 7.0$

$\Delta\Pi = 1.2485$

ξ	Φ	Φ'	Φ''
0.00	-1.1173	0.0000	0.0083
0.01	-1.1173	0.0001	0.0084
0.02	-1.1173	0.0002	0.0085
0.03	-1.1173	0.0003	0.0087
0.04	-1.1173	0.0003	0.0091
0.05	-1.1173	0.0004	0.0095
0.06	-1.1173	0.0005	0.0100
0.07	-1.1173	0.0006	0.0107
0.08	-1.1173	0.0007	0.0114
0.09	-1.1173	0.0009	0.0123
0.10	-1.1172	0.0010	0.0133
0.11	-1.1172	0.0011	0.0145
0.12	-1.1172	0.0013	0.0158
0.13	-1.1172	0.0015	0.0173
0.14	-1.1172	0.0016	0.0190
0.15	-1.1172	0.0018	0.0209
0.16	-1.1172	0.0021	0.0231
0.17	-1.1171	0.0023	0.0254
0.18	-1.1171	0.0026	0.0281
0.19	-1.1171	0.0029	0.0311
0.20	-1.1171	0.0032	0.0344
0.21	-1.1170	0.0035	0.0381
0.22	-1.1170	0.0039	0.0422
0.23	-1.1169	0.0044	0.0468
0.24	-1.1169	0.0049	0.0519
0.25	-1.1168	0.0054	0.0576
0.26	-1.1168	0.0060	0.0638
0.27	-1.1167	0.0067	0.0708
0.28	-1.1167	0.0075	0.0786
0.29	-1.1166	0.0083	0.0873
0.30	-1.1165	0.0092	0.0969
0.31	-1.1164	0.0102	0.1075
0.32	-1.1163	0.0114	0.1194
0.33	-1.1162	0.0126	0.1326
0.34	-1.1160	0.0140	0.1472
0.35	-1.1159	0.0156	0.1634
0.36	-1.1157	0.0173	0.1814
0.37	-1.1155	0.0192	0.2015
0.38	-1.1153	0.0213	0.2237
0.39	-1.1151	0.0237	0.2484
0.40	-1.1149	0.0263	0.2758
0.41	-1.1146	0.0292	0.3062
0.42	-1.1143	0.0325	0.3400
0.43	-1.1139	0.0361	0.3775
0.44	-1.1136	0.0400	0.4192
0.45	-1.1131	0.0445	0.4654
0.46	-1.1127	0.0494	0.5167
0.47	-1.1121	0.0548	0.5737
0.48	-1.1116	0.0609	0.6369
0.49	-1.1109	0.0676	0.7070
0.50	-1.1102	0.0751	0.7849

ξ	Φ	Φ'	Φ''
0.50	-1.1102	0.0751	0.7849
0.51	-1.1094	0.0833	0.8712
0.52	-1.1085	0.0925	0.9670
0.53	-1.1076	0.1027	1.0733
0.54	-1.1065	0.1141	1.1912
0.55	-1.1053	0.1266	1.3220
0.56	-1.1040	0.1406	1.4670
0.57	-1.1025	0.1560	1.6278
0.58	-1.1008	0.1732	1.8060
0.59	-1.0990	0.1923	2.0035
0.60	-1.0970	0.2134	2.2223
0.61	-1.0948	0.2368	2.4646
0.62	-1.0923	0.2628	2.7330
0.63	-1.0895	0.2916	3.0302
0.64	-1.0864	0.3236	3.3589
0.65	-1.0830	0.3590	3.7226
0.66	-1.0792	0.3982	4.1247
0.67	-1.0751	0.4417	4.5691
0.68	-1.0704	0.4898	5.0600
0.69	-1.0653	0.5431	5.6017
0.70	-1.0596	0.6021	6.1993
0.71	-1.0532	0.6674	6.8580
0.72	-1.0462	0.7396	7.5833
0.73	-1.0384	0.8195	8.3814
0.74	-1.0298	0.9077	9.2584
0.75	-1.0203	1.0051	10.221
0.76	-1.0097	1.1125	11.276
0.77	-0.9980	1.2311	12.431
0.78	-0.9851	1.3617	13.693
0.79	-0.9708	1.5055	15.069
0.80	-0.9550	1.6637	16.567
0.81	-0.9375	1.8375	18.193
0.82	-0.9182	2.0282	19.952
0.83	-0.8970	2.2372	21.851
0.84	-0.8735	2.4660	23.893
0.85	-0.8476	2.7158	26.080
0.86	-0.8192	2.9883	28.410
0.87	-0.7879	3.2847	30.880
0.88	-0.7535	3.6065	33.482
0.89	-0.7157	3.9550	36.202
0.90	-0.6744	4.3311	39.021
0.91	-0.6291	4.7357	41.912
0.92	-0.5797	5.1695	44.840
0.93	-0.5257	5.6325	47.757
0.94	-0.4670	6.1243	50.606
0.95	-0.4032	6.6439	53.314
0.96	-0.3341	7.1894	55.797
0.97	-0.2594	7.7582	57.952
0.98	-0.1790	8.3462	59.659
0.99	-0.0925	8.9485	60.785
1.00	0.0000	9.5563	61.910

$\lambda = 8.0$

$\Delta\Pi = 1.2143$

ξ	Φ	Φ'	Φ''
0.00	-1.1019	0.0000	0.0026
0.01	-1.1019	0.0000	0.0026
0.02	-1.1019	0.0001	0.0026
0.03	-1.1019	0.0001	0.0027
0.04	-1.1019	0.0001	0.0028
0.05	-1.1019	0.0001	0.0030
0.06	-1.1019	0.0002	0.0032
0.07	-1.1019	0.0002	0.0035
0.08	-1.1019	0.0002	0.0038
0.09	-1.1019	0.0003	0.0042
0.10	-1.1019	0.0003	0.0046
0.11	-1.1019	0.0004	0.0051
0.12	-1.1019	0.0004	0.0056
0.13	-1.1019	0.0005	0.0063
0.14	-1.1019	0.0005	0.0070
0.15	-1.1019	0.0006	0.0078
0.16	-1.1019	0.0007	0.0088
0.17	-1.1019	0.0008	0.0098
0.18	-1.1019	0.0009	0.0110
0.19	-1.1018	0.0010	0.0124
0.20	-1.1018	0.0012	0.0139
0.21	-1.1018	0.0013	0.0157
0.22	-1.1018	0.0015	0.0176
0.23	-1.1018	0.0017	0.0198
0.24	-1.1018	0.0019	0.0223
0.25	-1.1018	0.0021	0.0251
0.26	-1.1017	0.0024	0.0283
0.27	-1.1017	0.0027	0.0319
0.28	-1.1017	0.0030	0.0359
0.29	-1.1016	0.0034	0.0404
0.30	-1.1016	0.0038	0.0455
0.31	-1.1016	0.0043	0.0512
0.32	-1.1015	0.0048	0.0577
0.33	-1.1015	0.0055	0.0650
0.34	-1.1014	0.0062	0.0732
0.35	-1.1014	0.0069	0.0825
0.36	-1.1013	0.0078	0.0929
0.37	-1.1012	0.0088	0.1047
0.38	-1.1011	0.0099	0.1179
0.39	-1.1010	0.0112	0.1328
0.40	-1.1009	0.0126	0.1496
0.41	-1.1007	0.0142	0.1685
0.42	-1.1006	0.0160	0.1898
0.43	-1.1004	0.0180	0.2137
0.44	-1.1002	0.0202	0.2407
0.45	-1.1000	0.0228	0.2712
0.46	-1.0998	0.0257	0.3054
0.47	-1.0995	0.0289	0.3440
0.48	-1.0992	0.0326	0.3874
0.49	-1.0989	0.0367	0.4363
0.50	-1.0985	0.0413	0.4914

ξ	Φ	Φ'	Φ''
0.50	-1.0985	0.0413	0.4914
0.51	-1.0980	0.0466	0.5534
0.52	-1.0975	0.0525	0.6233
0.53	-1.0970	0.0591	0.7019
0.54	-1.0964	0.0665	0.7903
0.55	-1.0957	0.0749	0.8899
0.56	-1.0949	0.0844	1.0020
0.57	-1.0940	0.0951	1.1281
0.58	-1.0930	0.1070	1.2701
0.59	-1.0918	0.1205	1.4297
0.60	-1.0905	0.1357	1.6093
0.61	-1.0891	0.1528	1.8113
0.62	-1.0875	0.1721	2.0384
0.63	-1.0857	0.1938	2.2937
0.64	-1.0836	0.2181	2.5805
0.65	-1.0813	0.2455	2.9028
0.66	-1.0787	0.2764	3.2648
0.67	-1.0758	0.3111	3.6711
0.68	-1.0725	0.3500	4.1271
0.69	-1.0688	0.3939	4.6384
0.70	-1.0646	0.4431	5.2117
0.71	-1.0599	0.4985	5.8538
0.72	-1.0546	0.5606	6.5726
0.73	-1.0487	0.6303	7.3766
0.74	-1.0420	0.7086	8.2751
0.75	-1.0345	0.7964	9.2780
0.76	-1.0261	0.8947	10.396
0.77	-1.0166	1.0049	11.641
0.78	-1.0060	1.1283	13.026
0.79	-0.9941	1.2662	14.562
0.80	-0.9807	1.4203	16.264
0.81	-0.9657	1.5924	18.144
0.82	-0.9488	1.7842	20.217
0.83	-0.9300	1.9977	22.495
0.84	-0.9089	2.2352	24.990
0.85	-0.8853	2.4987	27.712
0.86	-0.8589	2.7906	30.667
0.87	-0.8295	3.1132	33.859
0.88	-0.7966	3.4689	37.286
0.89	-0.7601	3.8600	40.937
0.90	-0.7194	4.2887	44.793
0.91	-0.6743	4.7568	48.822
0.92	-0.6243	5.2658	52.979
0.93	-0.5690	5.8167	57.200
0.94	-0.5080	6.4096	61.397
0.95	-0.4408	7.0439	65.461
0.96	-0.3671	7.7175	69.250
0.97	-0.2865	8.4267	72.593
0.98	-0.1986	9.1661	75.284
0.99	-0.1031	9.9279	77.082
1.00	0.0000	10.699	78.879

$\lambda = 9.0$

$\Delta\Pi = 1.1883$

ξ	Φ	Φ'	Φ''
0.00	-1.0901	0.0000	0.0008
0.01	-1.0901	0.0000	0.0008
0.02	-1.0901	0.0000	0.0008
0.03	-1.0901	0.0000	0.0008
0.04	-1.0901	0.0000	0.0009
0.05	-1.0901	0.0000	0.0009
0.06	-1.0901	0.0001	0.0010
0.07	-1.0901	0.0001	0.0011
0.08	-1.0901	0.0001	0.0012
0.09	-1.0901	0.0001	0.0014
0.10	-1.0901	0.0001	0.0015
0.11	-1.0901	0.0001	0.0017
0.12	-1.0901	0 0001	0.0020
0.13	-1.0901	0.0002	0.0022
0.14	-1.0901	0.0002	0.0025
0.15	-1.0901	0.0002	0.0029
0.16	-1.0901	0.0002	0.0033
0.17	-1.0900	0.0003	0.0037
0.18	-1.0900	0.0003	0.0042
0.19	-1.0900	0.0004	0.0048
0.20	-1.0900	0.0004	0.0055
0.21	-1.0900	0.0005	0.0063
0.22	-1.0900	0.0005	0.0072
0.23	-1.0900	0.0006	0.0082
0.24	-1.0900	0.0007	0.0094
0.25	-1.0900	0.0008	0.0107
0.26	-1.0900	0.0009	0.0122
0.27	-1.0900	0.0010	0.0139
0.28	-1.0900	0.0012	0.0159
0.29	-1.0900	0.0014	0.0182
0.30	-1.0900	0.0016	0.0208
0.31	-1.0899	0.0018	0.0238
0.32	-1.0899	0.0020	0.0272
0.33	-1.0899	0.0023	0.0310
0.34	-1.0899	0.0027	0.0355
0.35	-1.0898	0.0030	0.0405
0.36	-1.0898	0.0035	0.0463
0.37	-1.0898	0.0040	0.0529
0.38	-1.0897	0.0045	0.0604
0.39	-1.0897	0.0052	0.0691
0.40	-1.0896	0.0059	0.0789
0.41	-1.0896	0.0068	0.0902
0.42	-1.0895	0.0077	0.1030
0.43	-1.0894	0.0088	0.1177
0.44	-1.0893	0.0101	0.1345
0.45	-1.0892	0.0115	0.1537
0.46	-1.0891	0.0132	0.1756
0.47	-1.0889	0.0151	0.2006
0.48	-1.0888	0.0172	0.2292
0.49	-1.0886	0.0197	0.2619
0.50	-1.0884	0.0225	0.2992

ξ	Φ	Φ'	Φ''
0.50	-1.0884	0.0225	0.2992
0.51	-1.0881	0.0257	0.3419
0.52	-1.0879	0.0293	0.3906
0.53	-1.0876	0.0335	0.4462
0.54	-1.0872	0.0383	0.5098
0.55	-1.0868	0.0438	0.5824
0.56	-1.0863	0.0500	0.6653
0.57	-1.0858	0.0571	0.7600
0.58	-1.0852	0.0653	0.8681
0.59	-1.0845	0.0746	0.9915
0.60	-1.0837	0.0852	1.1324
0.61	-1.0828	0.0973	1.2933
0.62	-1.0817	0.1112	1.4768
0.63	-1.0806	0.1270	1.6863
0.64	-1.0792	0.1450	1.9253
0.65	-1.0777	0.1657	2.1979
0.66	-1.0759	0.1892	2.5087
0.67	-1.0739	0.2161	2.8630
0.68	-1.0716	0.2467	3.2668
0.69	-1.0689	0.2817	3.7268
0.70	-1.0659	0.3216	4.2505
0.71	-1.0625	0.3670	4.8466
0.72	-1.0586	0.4189	5.5245
0.73	-1.0541	0.4780	6.2950
0.74	-1.0490	0.5453	7.1701
0.75	-1.0432	0.6220	8.1631
0.76	-1.0366	0.7092	9.2887
0.77	-1.0290	0.8085	10.563
0.78	-1.0204	0.9213	12.004
0.79	-1.0106	1.0495	13.631
0.80	-0.9994	1.1950	15.464
0.81	-0.9867	1.3599	17.526
0.82	-0.9722	1.5468	19.839
0.83	-0.9558	1.7581	22.427
0.84	-0.9371	1.9968	25.313
0.85	-0.9158	2.2660	28.519
0.86	-0.8918	2.5689	32.066
0.87	-0.8645	2.9091	35.969
0.88	-0.8336	3.2901	40.237
0.89	-0.7987	3.7156	44.871
0.90	-0.7593	4.1893	49.859
0.91	-0.7149	4.7144	55.172
0.92	-0.6650	5.2941	60.757
0.93	-0.6090	5.9305	66.535
0.94	-0.5464	6.6252	72.388
0.95	-0.4765	7.3779	78.158
0.96	-0.3988	8.1868	83.634
0.97	-0.3128	9.0478	88.548
0.98	-0.2179	9.9533	92.566
0.99	-0.1137	10.893	95.287
1.00	0.0000	11.846	98.009

$\lambda = 10.0$

$\Delta\Pi = 1.1678$

ξ	Φ	Φ'	Φ''
0.00	-1.0807	0.0000	0.0002
0.01	-1.0807	0.0000	0.0002
0.02	-1.0807	0.0000	0.0002
0.03	-1.0807	0.0000	0.0002
0.04	-1.0807	0.0000	0.0003
0.05	-1.0807	0.0000	0.0003
0.06	-1.0807	0.0000	0.0003
0.07	-1.0807	0.0000	0.0004
0.08	-1.0807	0.0000	0.0004
0.09	-1.0807	0.0000	0.0004
0.10	-1.0807	0.0000	0.0005
0.11	-1.0807	0.0000	0.0006
0.12	-1.0807	0.0000	0.0007
0.13	-1.0807	0.0001	0.0008
0.14	-1.0807	0.0001	0.0009
0.15	-1.0807	0.0001	0.0010
0.16	-1.0807	0.0001	0.0012
0.17	-1.0807	0.0001	0.0014
0.18	-1.0807	0.0001	0.0016
0.19	-1.0807	0.0001	0.0018
0.20	-1.0807	0.0001	0.0021
0.21	-1.0807	0.0002	0.0025
0.22	-1.0806	0.0002	0.0029
0.23	-1.0806	0.0002	0.0033
0.24	-1.0806	0.0003	0.0038
0.25	-1.0806	0.0003	0.0044
0.26	-1.0806	0.0003	0.0052
0.27	-1.0806	0.0004	0.0060
0.28	-1.0806	0.0005	0.0069
0.29	-1.0806	0.0005	0.0080
0.30	-1.0806	0.0006	0.0093
0.31	-1.0806	0.0007	0.0108
0.32	-1.0806	0.0008	0.0125
0.33	-1.0806	0.0010	0.0145
0.34	-1.0806	0.0011	0.0168
0.35	-1.0806	0.0013	0.0194
0.36	-1.0806	0.0015	0.0225
0.37	-1.0805	0.0018	0.0261
0.38	-1.0805	0.0021	0.0303
0.39	-1.0805	0.0024	0.0351
0.40	-1.0805	0.0028	0.0407
0.41	-1.0804	0.0032	0.0472
0.42	-1.0804	0.0037	0.0547
0.43	-1.0804	0.0043	0.0634
0.44	-1.0803	0.0050	0.0735
0.45	-1.0803	0.0058	0.0851
0.46	-1.0802	0.0067	0.0987
0.47	-1.0801	0.0078	0.1144
0.48	-1.0801	0.0090	0.1326
0.49	-1.0800	0.0104	0.1537
0.50	-1.0798	0.0121	0.1781

ξ	Φ	Φ'	Φ''
0.50	-1.0798	0.0121	0.1781
0.51	-1.0797	0.0140	0.2065
0.52	-1.0796	0.0162	0.2393
0.53	-1.0794	0.0188	0.2774
0.54	-1.0792	0.0218	0.3215
0.55	-1.0790	0.0253	0.3726
0.56	-1.0787	0.0293	0.4318
0.57	-1.0784	0.0340	0.5004
0.58	-1.0780	0.0394	0.5799
0.59	-1.0776	0.0456	0.6720
0.60	-1.0771	0.0529	0.7787
0.61	-1.0765	0.0613	0.9023
0.62	-1.0759	0.0710	1.0454
0.63	-1.0751	0.0823	1.2112
0.64	-1.0742	0.0954	1.4032
0.65	-1.0732	0.1105	1.6255
0.66	-1.0720	0.1281	1.8828
0.67	-1.0706	0.1484	2.1805
0.68	-1.0690	0.1719	2.5250
0.69	-1.0672	0.1992	2.9234
0.70	-1.0651	0.2307	3.3840
0.71	-1.0626	0.2672	3.9164
0.72	-1.0597	0.3094	4.5314
0.73	-1.0564	0.3583	5.2415
0.74	-1.0525	0.4148	6.0608
0.75	-1.0481	0.4801	7.0055
0.76	-1.0429	0.5556	8.0937
0.77	-1.0370	0.6428	9.3461
0.78	-1.0301	0.7435	10.786
0.79	-1.0221	0.8596	12.438
0.80	-1.0129	0.9935	14.332
0.81	-1.0022	1.1476	16.499
0.82	-0.9899	1.3250	18.972
0.83	-0.9757	1.5288	21.787
0.84	-0.9594	1.7626	24.984
0.85	-0.9405	2.0305	28.599
0.86	-0.9188	2.3369	32.671
0.87	-0.8938	2.6864	37.235
0.88	-0.8650	3.0842	42.321
0.89	-0.8321	3.5355	47.947
0.90	-0.7943	4.0458	54.118
0.91	-0.7512	4.6205	60.815
0.92	-0.7019	5.2645	67.991
0.93	-0.6459	5.9823	75.555
0.94	-0.5823	6.7769	83.363
0.95	-0.5103	7.6497	91.203
0.96	-0.4293	8.5996	98.777
0.97	-0.3383	9.6219	105.69
0.98	-0.2368	10.708	111.44
0.99	-0.1242	11.842	115.38
1.00	0.0000	12.996	119.33

$\lambda = 15.0$

$\Delta\Pi = 1.1085$

ξ	Φ	Φ'	Φ''
0.00	-1.0529	0.0000	0.0000
0.01	-1.0529	0.0000	0.0000
0.02	-1.0529	0.0000	0.0000
0.03	-1.0529	0.0000	0.0000
0.04	-1.0529	0.0000	0.0000
0.05	-1.0529	0.0000	0.0000
0.06	-1.0529	0.0000	0.0000
0.07	-1.0529	0.0000	0.0000
0.08	-1.0529	0.0000	0.0000
0.09	-1.0529	0.0000	0.0000
0.10	-1.0529	0.0000	0.0000
0.11	-1.0529	0.0000	0.0000
0.12	-1.0529	0.0000	0.0000
0.13	-1.0529	0.0000	0.0000
0.14	-1.0529	0.0000	0.0000
0.15	-1.0529	0.0000	0.0000
0.16	-1.0529	0.0000	0.0000
0.17	-1.0529	0.0000	0.0000
0.18	-1.0529	0.0000	0.0000
0.19	-1.0529	0.0000	0.0000
0.20	-1.0529	0.0000	0.0000
0.21	-1.0529	0.0000	0.0000
0.22	-1.0529	0.0000	0.0000
0.23	-1.0529	0.0000	0.0000
0.24	-1.0529	0.0000	0.0000
0.25	-1.0529	0.0000	0.0000
0.26	-1.0529	0.0000	0.0001
0.27	-1.0529	0.0000	0.0001
0.28	-1.0529	0.0000	0.0001
0.29	-1.0529	0.0000	0.0001
0.30	-1.0529	0.0000	0.0001
0.31	-1.0529	0.0000	0.0002
0.32	-1.0529	0.0000	0.0002
0.33	-1.0529	0.0000	0.0002
0.34	-1.0529	0.0000	0.0003
0.35	-1.0529	0.0000	0.0004
0.36	-1.0529	0.0000	0.0005
0.37	-1.0529	0.0000	0.0006
0.38	-1.0529	0.0000	0.0007
0.39	-1.0529	0.0000	0.0009
0.40	-1.0529	0.0001	0.0012
0.41	-1.0529	0.0001	0.0014
0.42	-1.0529	0.0001	0.0018
0.43	-1.0529	0.0001	0.0022
0.44	-1.0529	0.0001	0.0028
0.45	-1.0529	0.0002	0.0035
0.46	-1.0529	0.0002	0.0044
0.47	-1.0529	0.0002	0.0054
0.48	-1.0529	0.0003	0.0068
0.49	-1.0528	0.0004	0.0084
0.50	-1.0528	0.0005	0.0105

ξ	Φ	Φ'	Φ''
0.50	-1.0528	0.0005	0.0105
0.51	-1.0528	0.0006	0.0131
0.52	-1.0528	0.0007	0.0163
0.53	-1.0528	0.0009	0.0203
0.54	-1.0528	0.0012	0.0253
0.55	-1.0528	0.0014	0.0315
0.56	-1.0528	0.0018	0.0392
0.57	-1.0528	0.0022	0.0488
0.58	-1.0527	0.0028	0.0608
0.59	-1.0527	0.0035	0.0758
0.60	-1.0527	0.0043	0.0944
0.61	-1.0526	0.0054	0.1177
0.62	-1.0526	0.0067	0.1466
0.63	-1.0525	0.0083	0.1826
0.64	-1.0524	0.0104	0.2275
0.65	-1.0523	0.0129	0.2834
0.66	-1.0521	0.0161	0.3531
0.67	-1.0520	0.0201	0.4399
0.68	-1.0517	0.0250	0.5480
0.69	-1.0515	0.0312	0.6826
0.70	-1.0511	0.0389	0.8502
0.71	-1.0507	0.0484	1.0590
0.72	-1.0501	0.0603	1.3189
0.73	-1.0495	0.0751	1.6425
0.74	-1.0486	0.0935	2.0452
0.75	-1.0476	0.1165	2.5464
0.76	-1.0463	0.1451	3.1698
0.77	-1.0447	0.1806	3.9450
0.78	-1.0427	0.2249	4.9084
0.79	-1.0402	0.2800	6.1052
0.80	-1.0371	0.3485	7.5907
0.81	-1.0332	0.4336	9.4329
0.82	-1.0284	0.5393	11.715
0.83	-1.0224	0.6706	14.537
0.84	-1.0150	0.8334	18.021
0.85	-1.0058	1.0350	22.313
0.86	-0.9943	1.2845	27.586
0.87	-0.9801	1.5926	34.038
0.88	-0.9625	1.9723	41.899
0.89	-0.9406	2.4389	51.422
0.90	-0.9137	3.0104	62.874
0.91	-0.8804	3.7074	76.518
0.92	-0.8395	4.5529	92.577
0.93	-0.7894	5.5717	111.18
0.94	-0.7281	6.7891	132.30
0.95	-0.6536	8.2284	155.58
0.96	-0.5635	9.9074	180.23
0.97	-0.4554	11.833	204.82
0.98	-0.3269	13.992	227.02
0.99	-0.1756	16.344	243.41
1.00	0.0000	18.778	259.80

$\lambda = 20.0$

$\Delta\Pi = 1.0799$

ξ	Φ	Φ'	Φ''
0.00	-1.0392	0.0000	0.0000
0.01	-1.0392	0.0000	0.0000
0.02	-1.0392	0.0000	0.0000
0.03	-1.0392	0.0000	0.0000
0.04	-1.0392	0.0000	0.0000
0.05	-1.0392	0.0000	0.0000
0.06	-1.0392	0.0000	0.0000
0.07	-1.0392	0.0000	0.0000
0.08	-1.0392	0.0000	0.0000
0.09	-1.0392	0.0000	0.0000
0.10	-1.0392	0.0000	0.0000
0.11	-1.0392	0.0000	0.0000
0.12	-1.0392	0.0000	0.0000
0.13	-1.0392	0.0000	0.0000
0.14	-1.0392	0.0000	0.0000
0.15	-1.0392	0.0000	0.0000
0.16	-1.0392	0.0000	0.0000
0.17	-1.0392	0.0000	0.0000
0.18	-1.0392	0.0000	0.0000
0.19	-1.0392	0.0000	0.0000
0.20	-1.0392	0.0000	0.0000
0.21	-1.0392	0.0000	0.0000
0.22	-1.0392	0.0000	0.0000
0.23	-1.0392	0.0000	0.0000
0.24	-1.0392	0.0000	0.0000
0.25	-1.0392	0.0000	0.0000
0.26	-1.0392	0.0000	0.0000
0.27	-1.0392	0.0000	0.0000
0.28	-1.0392	0.0000	0.0000
0.29	-1.0392	0.0000	0.0000
0.30	-1.0392	0.0000	0.0000
0.31	-1.0392	0.0000	0.0000
0.32	-1.0392	0.0000	0.0000
0.33	-1.0392	0.0000	0.0000
0.34	-1.0392	0.0000	0.0000
0.35	-1.0392	0.0000	0.0000
0.36	-1.0392	0.0000	0.0000
0.37	-1.0392	0.0000	0.0000
0.38	-1.0392	0.0000	0.0000
0.39	-1.0392	0.0000	0.0000
0.40	-1.0392	0.0000	0.0000
0.41	-1.0392	0.0000	0.0000
0.42	-1.0392	0.0000	0.0000
0.43	-1.0392	0.0000	0.0001
0.44	-1.0392	0.0000	0.0001
0.45	-1.0392	0.0000	0.0001
0.46	-1.0392	0.0000	0.0001
0.47	-1.0392	0.0000	0.0002
0.48	-1.0392	0.0000	0.0003
0.49	-1.0392	0.0000	0.0003
0.50	-1.0392	0.0000	0.0005

ξ	Φ	Φ'	Φ''
0.50	-1.0392	0.0000	0.0005
0.51	-1.0392	0.0000	0.0006
0.52	-1.0392	0.0000	0.0008
0.53	-1.0392	0.0000	0.0011
0.54	-1.0392	0.0001	0.0015
0.55	-1.0392	0.0001	0.0020
0.56	-1.0392	0.0001	0.0027
0.57	-1.0392	0.0001	0.0037
0.58	-1.0392	0.0002	0.0049
0.59	-1.0392	0.0002	0.0066
0.60	-1.0392	0.0003	0.0088
0.61	-1.0392	0.0004	0.0118
0.62	-1.0392	0.0005	0.0158
0.63	-1.0391	0.0007	0.0212
0.64	-1.0391	0.0010	0.0285
0.65	-1.0391	0.0013	0.0382
0.66	-1.0391	0.0018	0.0512
0.67	-1.0391	0.0024	0.0687
0.68	-1.0391	0.0032	0.0921
0.69	-1.0390	0.0042	0.1236
0.70	-1.0390	0.0057	0.1657
0.71	-1.0389	0.0076	0.2222
0.72	-1.0388	0.0102	0.2980
0.73	-1.0387	0.0137	0.3996
0.74	-1.0386	0.0184	0.5358
0.75	-1.0383	0.0247	0.7185
0.76	-1.0381	0.0331	0.9633
0.77	-1.0377	0.0443	1.2915
0.78	-1.0372	0.0595	1.7314
0.79	-1.0365	0.0797	2.3209
0.80	-1.0356	0.1069	3.1104
0.81	-1.0344	0.1433	4.1677
0.82	-1.0327	0.1920	5.5828
0.83	-1.0305	0.2573	7.4755
0.84	-1.0276	0.3447	10.005
0.85	-1.0236	0.4616	13.380
0.86	-1.0183	0.6179	17.877
0.87	-1.0113	0.8266	23.856
0.88	-1.0018	1.1048	31.780
0.89	-0.9892	1.4749	42.241
0.90	-0.9723	1.9659	55.974
0.91	-0.9498	2.6151	73.868
0.92	-0.9200	3.4692	96.947
0.93	-0.8805	4.5854	126.30
0.94	-0.8283	6.0314	162.89
0.95	-0.7598	7.8822	207.27
0.96	-0.6706	10.213	258.92
0.97	-0.5556	13.085	315.40
0.98	-0.4090	16.517	370.98
0.99	-0.2252	20.448	415.23
1.00	0.0000	24.600	459.47

$\lambda = 25.0$

$\Delta\Pi = 1.0629$

ξ	Φ	Φ'	Φ''
0.00	-1.0310	0.0000	0.0000
0.01	-1.0310	0.0000	0.0000
0.02	-1.0310	0.0000	0.0000
0.03	-1.0310	0.0000	0.0000
0.04	-1.0310	0.0000	0.0000
0.05	-1.0310	0.0000	0.0000
0.06	-1.0310	0.0000	0.0000
0.07	-1.0310	0.0000	0.0000
0.08	-1.0310	0.0000	0.0000
0.09	-1.0310	0.0000	0.0000
0.10	-1.0310	0.0000	0.0000
0.11	-1.0310	0.0000	0.0000
0.12	-1.0310	0.0000	0.0000
0.13	-1.0310	0.0000	0.0000
0.14	-1.0310	0.0000	0.0000
0.15	-1.0310	0.0000	0.0000
0.16	-1.0310	0.0000	0.0000
0.17	-1.0310	0.0000	0.0000
0.18	-1.0310	0.0000	0.0000
0.19	-1.0310	0.0000	0.0000
0.20	-1.0310	0.0000	0.0000
0.21	-1.0310	0.0000	0.0000
0.22	-1.0310	0.0000	0.0000
0.23	-1.0310	0.0000	0.0000
0.24	-1.0310	0.0000	0.0000
0.25	-1.0310	0.0000	0.0000
0.26	-1.0310	0.0000	0.0000
0.27	-1.0310	0.0000	0.0000
0.28	-1.0310	0.0000	0.0000
0.29	-1.0310	0.0000	0.0000
0.30	-1.0310	0.0000	0.0000
0.31	-1.0310	0.0000	0.0000
0.32	-1.0310	0.0000	0.0000
0.33	-1.0310	0.0000	0.0000
0.34	-1.0310	0.0000	0.0000
0.35	-1.0310	0.0000	0.0000
0.36	-1.0310	0.0000	0.0000
0.37	-1.0310	0.0000	0.0000
0.38	-1.0310	0.0000	0.0000
0.39	-1.0310	0.0000	0.0000
0.40	-1.0310	0.0000	0.0000
0.41	-1.0310	0.0000	0.0000
0.42	-1.0310	0.0000	0.0000
0.43	-1.0310	0.0000	0.0000
0.44	-1.0310	0.0000	0.0000
0.45	-1.0310	0.0000	0.0000
0.46	-1.0310	0.0000	0.0000
0.47	-1.0310	0.0000	0.0000
0.48	-1.0310	0.0000	0.0000
0.49	-1.0310	0.0000	0.0000
0.50	-1.0310	0.0000	0.0000

ξ	Φ	Φ'	Φ''
0.50	-1.0310	0.0000	0.0000
0.51	-1.0310	0.0000	0.0000
0.52	-1.0310	0.0000	0.0000
0.53	-1.0310	0.0000	0.0001
0.54	-1.0310	0.0000	0.0001
0.55	-1.0310	0.0000	0.0001
0.56	-1.0310	0.0000	0.0002
0.57	-1.0310	0.0000	0.0002
0.58	-1.0310	0.0000	0.0003
0.59	-1.0310	0.0000	0.0005
0.60	-1.0310	0.0000	0.0007
0.61	-1.0310	0.0000	0.0010
0.62	-1.0310	0.0000	0.0014
0.63	-1.0310	0.0001	0.0021
0.64	-1.0310	0.0001	0.0030
0.65	-1.0310	0.0001	0.0043
0.66	-1.0310	0.0002	0.0062
0.67	-1.0310	0.0002	0.0090
0.68	-1.0310	0.0004	0.0130
0.69	-1.0310	0.0005	0.0188
0.70	-1.0310	0.0007	0.0272
0.71	-1.0310	0.0011	0.0393
0.72	-1.0309	0.0016	0.0569
0.73	-1.0309	0.0023	0.0823
0.74	-1.0309	0.0033	0.1190
0.75	-1.0309	0.0047	0.1722
0.76	-1.0308	0.0068	0.2490
0.77	-1.0307	0.0099	0.3601
0.78	-1.0306	0.0143	0.5208
0.79	-1.0304	0.0206	0.7532
0.80	-1.0302	0.0299	1.0892
0.81	-1.0298	0.0432	1.5750
0.82	-1.0293	0.0624	2.2772
0.83	-1.0286	0.0903	3.2919
0.84	-1.0275	0.1305	4.7575
0.85	-1.0260	0.1887	6.8733
0.86	-1.0238	0.2727	9.9250
0.87	-1.0205	0.3939	14.321
0.88	-1.0159	0.5687	20.643
0.89	-1.0092	0.8205	29.710
0.90	-0.9995	1.1824	42.665
0.91	-0.9855	1.7011	61.074
0.92	-0.9654	2.4415	87.022
0.93	-0.9367	3.4925	123.17
0.94	-0.8956	4.9715	172.65
0.95	-0.8372	7.0279	238.62
0.96	-0.7550	9.8365	323.12
0.97	-0.6405	13.575	424.64
0.98	-0.4835	18.368	533.90
0.99	-0.2732	24.177	627.80
1.00	0.0000	30.455	721.71

$\lambda = 30.0$

$\Delta\Pi = 1.0517$

ξ	Φ	Φ'	Φ''
0.00	-1.0255	0.0000	0.0000
0.01	-1.0255	0.0000	0.0000
0.02	-1.0255	0.0000	0.0000
0.03	-1.0255	0.0000	0.0000
0.04	-1.0255	0.0000	0.0000
0.05	-1.0255	0.0000	0.0000
0.06	-1.0255	0.0000	0.0000
0.07	-1.0255	0.0000	0.0000
0.08	-1.0255	0.0000	0.0000
0.09	-1.0255	0.0000	0.0000
0.10	-1.0255	0.0000	0.0000
0.11	-1.0255	0.0000	0.0000
0.12	-1.0255	0.0000	0.0000
0.13	-1.0255	0.0000	0.0000
0.14	-1.0255	0.0000	0.0000
0.15	-1.0255	0.0000	0.0000
0.16	-1.0255	0.0000	0.0000
0.17	-1.0255	0.0000	0.0000
0.18	-1.0255	0.0000	0.0000
0.19	-1.0255	0.0000	0.0000
0.20	-1.0255	0.0000	0.0000
0.21	-1.0255	0.0000	0.0000
0.22	-1.0255	0.0000	0.0000
0.23	-1.0255	0.0000	0.0000
0.24	-1.0255	0.0000	0.0000
0.25	-1.0255	0.0000	0.0000
0.26	-1.0255	0.0000	0.0000
0.27	-1.0255	0.0000	0.0000
0.28	-1.0255	0.0000	0.0000
0.29	-1.0255	0.0000	0.0000
0.30	-1.0255	0.0000	0.0000
0.31	-1.0255	0.0000	0.0000
0.32	-1.0255	0.0000	0.0000
0.33	-1.0255	0.0000	0.0000
0.34	-1.0255	0.0000	0.0000
0.35	-1.0255	0.0000	0.0000
0.36	-1.0255	0.0000	0.0000
0.37	-1.0255	0.0000	0.0000
0.38	-1.0255	0.0000	0.0000
0.39	-1.0255	0.0000	0.0000
0.40	-1.0255	0.0000	0.0000
0.41	-1.0255	0.0000	0.0000
0.42	-1.0255	0.0000	0.0000
0.43	-1.0255	0.0000	0.0000
0.44	-1.0255	0.0000	0.0000
0.45	-1.0255	0.0000	0.0000
0.46	-1.0255	0.0000	0.0000
0.47	-1.0255	0.0000	0.0000
0.48	-1.0255	0.0000	0.0000
0.49	-1.0255	0.0000	0.0000
0.50	-1.0255	0.0000	0.0000

ξ	Φ	Φ'	Φ''
0.50	-1.0255	0.0000	0.0000
0.51	-1.0255	0.0000	0.0000
0.52	-1.0255	0.0000	0.0000
0.53	-1.0255	0.0000	0.0000
0.54	-1.0255	0.0000	0.0000
0.55	-1.0255	0.0000	0.0000
0.56	-1.0255	0.0000	0.0000
0.57	-1.0255	0.0000	0.0000
0.58	-1.0255	0.0000	0.0000
0.59	-1.0255	0.0000	0.0000
0.60	-1.0255	0.0000	0.0000
0.61	-1.0255	0.0000	0.0001
0.62	-1.0255	0.0000	0.0001
0.63	-1.0255	0.0000	0.0002
0.64	-1.0255	0.0000	0.0003
0.65	-1.0255	0.0000	0.0004
0.66	-1.0255	0.0000	0.0006
0.67	-1.0255	0.0000	0.0010
0.68	-1.0255	0.0000	0.0016
0.69	-1.0255	0.0001	0.0025
0.70	-1.0255	0.0001	0.0039
0.71	-1.0255	0.0001	0.0060
0.72	-1.0255	0.0002	0.0094
0.73	-1.0255	0.0003	0.0148
0.74	-1.0255	0.0005	0.0231
0.75	-1.0255	0.0008	0.0361
0.76	-1.0255	0.0013	0.0564
0.77	-1.0255	0.0020	0.0883
0.78	-1.0255	0.0031	0.1381
0.79	-1.0254	0.0049	0.2159
0.80	-1.0254	0.0077	0.3377
0.81	-1.0253	0.0120	0.5281
0.82	-1.0251	0.0188	0.8258
0.83	-1.0249	0.0294	1.2912
0.84	-1.0245	0.0459	2.0189
0.85	-1.0240	0.0718	3.1561
0.86	-1.0231	0.1122	4.9327
0.87	-1.0217	0.1754	7.7063
0.88	-1.0196	0.2741	12.032
0.89	-1.0162	0.4281	18.769
0.90	-1.0110	0.6681	29.235
0.91	-1.0029	1.0415	45.433
0.92	-0.9902	1.6204	70.352
0.93	-0.9705	2.5138	108.33
0.94	-0.9399	3.8822	165.35
0.95	-0.8928	5.9538	248.97
0.96	-0.8208	9.0333	366.93
0.97	-0.7122	13.483	522.98
0.98	-0.5512	19.633	707.05
0.99	-0.3195	27.559	878.17
1.00	0.0000	36.341	1049.3

$\lambda = 35.0$

$\Delta\Pi = 1.0437$

ξ	Φ	Φ'	Φ''
0.00	-1.0216	0.0000	0.0000
0.01	-1.0216	0.0000	0.0000
0.02	-1.0216	0.0000	0.0000
0.03	-1.0216	0.0000	0.0000
0.04	-1.0216	0.0000	0.0000
0.05	1.0216	0.0000	0.0000
0.06	-1.0216	0.0000	0.0000
0.07	-1.0216	0.0000	0.0000
0.08	-1.0216	0.0000	0.0000
0.09	-1.0216	0.0000	0.0000
0.10	-1.0216	0.0000	0.0000
0.11	-1.0216	0.0000	0.0000
0.12	-1.0216	0.0000	0.0000
0.13	-1.0216	0.0000	0.0000
0.14	-1.0216	0.0000	0.0000
0.15	-1.0216	0.0000	0.0000
0.16	-1.0216	0.0000	0.0000
0.17	-1.0216	0.0000	0.0000
0.18	-1.0216	0.0000	0.0000
0.19	-1.0216	0.0000	0.0000
0.20	-1.0216	0.0000	0.0000
0.21	-1.0216	0.0000	0.0000
0.22	-1.0216	0.0000	0.0000
0.23	-1.0216	0.0000	0.0000
0.24	-1.0216	0.0000	0.0000
0.25	-1.0216	0.0000	0.0000
0.26	-1.0216	0.0000	0.0000
0.27	-1.0216	0.0000	0.0000
0.28	-1.0216	0.0000	0.0000
0.29	-1.0216	0.0000	0.0000
0.30	-1.0216	0.0000	0.0000
0.31	-1.0216	0.0000	0.0000
0.32	-1.0216	0.0000	0.0000
0.33	-1.0216	0.0000	0.0000
0.34	-1.0216	0.0000	0.0000
0.35	-1.0216	0.0000	0.0000
0.36	-1.0216	0.0000	0.0000
0.37	-1.0216	0.0000	0.0000
0.38	-1.0216	0.0000	0.0000
0.39	-1.0216	0.0000	0.0000
0.40	-1.0216	0.0000	0.0000
0.41	-1.0216	0.0000	0.0000
0.42	-1.0216	0.0000	0.0000
0.43	-1.0216	0.0000	0.0000
0.44	-1.0216	0.0000	0.0000
0.45	-1.0216	0.0000	0.0000
0.46	-1.0216	0.0000	0.0000
0.47	-1.0216	0.0000	0.0000
0.48	-1.0216	0.0000	0.0000
0.49	-1.0216	0.0000	0.0000
0.50	-1.0216	0.0000	0.0000

ξ	Φ	Φ'	Φ''
0.50	-1.0216	0.0000	0.0000
0.51	-1.0216	0.0000	0.0000
0.52	-1.0216	0.0000	0.0000
0.53	-1.0216	0.0000	0.0000
0.54	-1.0216	0.0000	0.0000
0.55	-1.0216	0.0000	0.0000
0.56	-1.0216	0.0000	0.0000
0.57	-1.0216	0.0000	0.0000
0.58	-1.0216	0.0000	0.0000
0.59	-1.0216	0.0000	0.0000
0.60	-1.0216	0.0000	0.0000
0.61	-1.0216	0.0000	0.0000
0.62	-1.0216	0.0000	0.0000
0.63	-1.0216	0.0000	0.0000
0.64	-1.0216	0.0000	0.0000
0.65	-1.0216	0.0000	0.0000
0.66	-1.0216	0.0000	0.0001
0.67	-1.0216	0.0000	0.0001
0.68	-1.0216	0.0000	0.0002
0.69	-1.0216	0.0000	0.0003
0.70	-1.0216	0.0000	0.0005
0.71	-1.0216	0.0000	0.0008
0.72	-1.0216	0.0000	0.0014
0.73	-1.0216	0.0000	0.0023
0.74	-1.0216	0.0001	0.0039
0.75	-1.0216	0.0001	0.0067
0.76	-1.0216	0.0002	0.0113
0.77	-1.0216	0.0004	0.0192
0.78	-1.0216	0.0006	0 0325
0.79	-1.0216	0.0011	0.0552
0.80	-1.0216	0.0018	0.0937
0.81	-1.0215	0.0031	0.1589
0.82	-1.0215	0.0052	0.2696
0.83	-1.0214	0.0089	0.4575
0.84	-1.0213	0.0150	0.7761
0.85	-1.0211	0.0255	1.3166
0.86	-1.0208	0.0432	2.2334
0.87	-1.0203	0.0733	3.7877
0.88	-1.0194	0.1244	6.4217
0.89	-1.0178	0.2109	10.882
0.90	-1.0151	0.3574	18.422
0.91	-1.0106	0.6052	31.140
0.92	-1.0030	1.0234	52.501
0.93	-0.9902	1.7266	88.122
0.94	-0.9685	2.9012	146.81
0.95	-0.9321	4.8427	241.49
0.96	-0.8716	7.9943	388.84
0.97	-0.7723	12.958	603.94
0.98	-0.6125	20.392	882.80
0.99	-0.3644	30.624	1163.6
1.00	0.0000	42.260	1444.4

$\lambda = 40.0$

$\Delta\Pi = 1.0376$

ξ	Φ	Φ'	Φ''
0.00	-1.0186	0.0000	0.0000
0.01	-1.0186	0.0000	0.0000
0.02	-1.0186	0.0000	0.0000
0.03	-1.0186	0.0000	0.0000
0.04	-1.0186	0.0000	0.0000
0.05	-1.0186	0.0000	0.0000
0.06	-1.0186	0.0000	0.0000
0.07	-1.0186	0.0000	0.0000
0.08	-1.0186	0.0000	0.0000
0.09	-1.0186	0.0000	0.0000
0.10	-1.0186	0.0000	0.0000
0.11	-1.0186	0.0000	0.0000
0.12	-1.0186	0.0000	0.0000
0.13	-1.0186	0.0000	0.0000
0.14	-1.0186	0.0000	0.0000
0.15	-1.0186	0.0000	0.0000
0.16	-1.0186	0.0000	0.0000
0.17	-1.0186	0.0000	0.0000
0.18	-1.0186	0.0000	0.0000
0.19	-1.0186	0.0000	0.0000
0.20	-1.0186	0.0000	0.0000
0.21	-1.0186	0.0000	0.0000
0.22	-1.0186	0.0000	0.0000
0.23	-1.0186	0.0000	0.0000
0.24	-1.0186	0.0000	0.0000
0.25	-1.0186	0.0000	0.0000
0.26	-1.0186	0.0000	0.0000
0.27	-1.0186	0.0000	0.0000
0.28	-1.0186	0.0000	0.0000
0.29	-1.0186	0.0000	0.0000
0.30	-1.0186	0.0000	0.0000
0.31	-1.0186	0.0000	0.0000
0.32	-1.0186	0.0000	0.0000
0.33	-1.0186	0.0000	0.0000
0.34	-1.0186	0.0000	0.0000
0.35	-1.0186	0.0000	0.0000
0.36	-1.0186	0.0000	0.0000
0.37	-1.0186	0.0000	0.0000
0.38	-1.0186	0.0000	0.0000
0.39	-1.0186	0.0000	0.0000
0.40	-1.0186	0.0000	0.0000
0.41	-1.0186	0.0000	0.0000
0.42	-1.0186	0.0000	0.0000
0.43	-1.0186	0.0000	0.0000
0.44	-1.0186	0.0000	0.0000
0.45	-1.0186	0.0000	0.0000
0.46	-1.0186	0.0000	0.0000
0.47	-1.0186	0.0000	0.0000
0.48	-1.0186	0.0000	0.0000
0.49	-1.0186	0.0000	0.0000
0.50	-1.0186	0.0000	0.0000

ξ	Φ	Φ'	Φ''
0.50	-1.0186	0.0000	0.0000
0.51	-1.0186	0.0000	0.0000
0.52	-1.0186	0.0000	0.0000
0.53	-1.0186	0.0000	0.0000
0.54	-1.0186	0.0000	0.0000
0.55	-1.0186	0.0000	0.0000
0.56	-1.0186	0.0000	0.0000
0.57	-1.0186	0.0000	0.0000
0.58	-1.0186	0.0000	0.0000
0.59	-1.0186	0.0000	0.0000
0.60	-1.0186	0.0000	0.0000
0.61	-1.0186	0.0000	0.0000
0.62	-1.0186	0.0000	0.0000
0.63	-1.0186	0.0000	0.0000
0.64	-1.0186	0.0000	0.0000
0.65	-1.0186	0.0000	0.0000
0.66	-1.0186	0.0000	0.0000
0.67	-1.0186	0.0000	0.0000
0.68	-1.0186	0.0000	0.0000
0.69	-1.0186	0.0000	0.0000
0.70	-1.0186	0.0000	0.0000
0.71	-1.0186	0.0000	0.0001
0.72	-1.0186	0.0000	0.0002
0.73	-1.0186	0.0000	0.0003
0.74	-1.0186	0.0000	0.0006
0.75	-1.0186	0.0000	0.0011
0.76	-1.0186	0.0000	0.0020
0.77	-1.0186	0.0001	0.0037
0.78	-1.0186	0.0001	0.0068
0.79	-1.0186	0.0002	0.0126
0.80	-1.0186	0.0004	0.0232
0.81	-1.0186	0.0007	0.0429
0.82	-1.0186	0.0013	0.0793
0.83	-1.0186	0.0025	0.1465
0.84	-1.0186	0.0045	0.2709
0.85	-1.0185	0.0084	0.5006
0.86	-1.0184	0.0155	0.9253
0.87	-1.0182	0.0287	1.7101
0.88	-1.0178	0.0531	3.1599
0.89	-1.0171	0.0980	5.8373
0.90	-1.0159	0.1811	10.777
0.91	-1.0135	0.3344	19.879
0.92	-1.0092	0.6168	36.600
0.93	-1.0012	1.1356	67.162
0.94	-0.9865	2.0839	122.49
0.95	-0.9595	3.8007	220.88
0.96	-0.9104	6.8558	390.15
0.97	-0.8224	12.125	663.65
0.98	-0.6680	20.716	1054.6
0.99	-0.4081	33.398	1481.7
1.00	0.0000	48.215	1908.9

$\lambda = 45.0$

$\Delta\Pi = 1.0329$

ξ	Φ	Φ'	Φ''
0.00	-1.0163	0.0000	0.0000
0.01	-1.0163	0.0000	0.0000
0.02	-1.0163	0.0000	0.0000
0.03	-1.0163	0.0000	0.0000
0.04	-1.0163	0.0000	0.0000
0.05	-1.0163	0.0000	0.0000
0.06	-1.0163	0.0000	0.0000
0.07	-1.0163	0.0000	0.0000
0.08	-1.0163	0.0000	0.0000
0.09	-1.0163	0.0000	0.0000
0.10	-1.0163	0.0000	0.0000
0.11	-1.0163	0.0000	0.0000
0.12	-1.0163	0.0000	0.0000
0.13	-1.0163	0.0000	0.0000
0.14	-1.0163	0.0000	0.0000
0.15	-1.0163	0.0000	0.0000
0.16	-1.0163	0.0000	0.0000
0.17	-1.0163	0.0000	0.0000
0.18	-1.0163	0.0000	0.0000
0.19	-1.0163	0.0000	0.0000
0.20	-1.0163	0.0000	0.0000
0.21	-1.0163	0.0000	0.0000
0.22	-1.0163	0.0000	0.0000
0.23	-1.0163	0.0000	0.0000
0.24	-1.0163	0.0000	0.0000
0.25	-1.0163	0.0000	0.0000
0.26	-1.0163	0.0000	0.0000
0.27	-1.0163	0.0000	0.0000
0.28	-1.0163	0.0000	0.0000
0.29	-1.0163	0.0000	0.0000
0.30	-1.0163	0.0000	0.0000
0.31	-1.0163	0.0000	0.0000
0.32	-1.0163	0.0000	0.0000
0.33	-1.0163	0.0000	0.0000
0.34	-1.0163	0.0000	0.0000
0.35	-1.0163	0.0000	0.0000
0.36	-1.0163	0.0000	0.0000
0.37	-1.0163	0.0000	0.0000
0.38	-1.0163	0.0000	0.0000
0.39	-1.0163	0.0000	0.0000
0.40	-1.0163	0.0000	0.0000
0.41	-1.0163	0.0000	0.0000
0.42	-1.0163	0.0000	0.0000
0.43	-1.0163	0.0000	0.0000
0.44	-1.0163	0.0000	0.0000
0.45	-1.0163	0.0000	0.0000
0.46	-1.0163	0.0000	0.0000
0.47	-1.0163	0.0000	0.0000
0.48	-1.0163	0.0000	0.0000
0.49	-1.0163	0.0000	0.0000
0.50	-1.0163	0.0000	0.0000

ξ	Φ	Φ'	Φ''
0.50	-1.0163	0.0000	0.0000
0.51	-1.0163	0.0000	0.0000
0.52	-1.0163	0.0000	0.0000
0.53	-1.0163	0.0000	0.0000
0.54	-1.0163	0.0000	0.0000
0.55	-1.0163	0.0000	0.0000
0.56	-1.0163	0.0000	0.0000
0.57	-1.0163	0.0000	0.0000
0.58	-1.0163	0.0000	0.0000
0.59	-1.0163	0.0000	0.0000
0.60	-1.0163	0.0000	0.0000
0.61	-1.0163	0.0000	0.0000
0.62	-1.0163	0.0000	0.0000
0.63	-1.0163	0.0000	0.0000
0.64	-1.0163	0.0000	0.0000
0.65	-1.0163	0.0000	0.0000
0.66	-1.0163	0.0000	0.0000
0.67	-1.0163	0.0000	0.0000
0.68	-1.0163	0.0000	0.0000
0.69	-1.0163	0.0000	0.0000
0.70	-1.0163	0.0000	0.0000
0.71	-1.0163	0.0000	0.0000
0.72	-1.0163	0.0000	0.0000
0.73	-1.0163	0.0000	0.0000
0.74	-1.0163	0.0000	0.0001
0.75	-1.0163	0.0000	0.0001
0.76	-1.0163	0.0000	0.0003
0.77	-1.0163	0.0000	0.0006
0.78	-1.0163	0.0000	0.0012
0.79	-1.0163	0.0000	0.0025
0.80	-1.0163	0.0001	0.0051
0.81	-1.0163	0.0002	0.0103
0.82	-1.0163	0.0003	0.0208
0.83	-1.0163	0.0006	0.0421
0.84	-1.0163	0.0013	0.0853
0.85	-1.0163	0.0025	0.1727
0.86	-1.0162	0.0052	0.3495
0.87	-1.0162	0.0104	0.7075
0.88	-1.0160	0.0211	1.4319
0.89	-1.0157	0.0428	2.8977
0.90	-1.0152	0.0866	5.8623
0.91	-1.0140	0.1752	11.853
0.92	-1.0117	0.3541	23.937
0.93	-1.0069	0.7149	48.225
0.94	-0.9974	1.4395	96.687
0.95	-0.9781	2.8828	191.97
0.96	-0.9397	5.7115	373.79
0.97	-0.8639	11.082	700.25
0.98	-0.7181	20.667	1216.8
0.99	-0.4506	35.904	1830.5
1.00	0.0000	54.209	2444.2

$\lambda = 50.0$

$\Delta\Pi = 1.0290$

ξ	Φ	Φ'	Φ''
0.00	-1.0144	0.0000	0.0000
0.01	-1.0144	0.0000	0.0000
0.02	-1.0144	0.0000	0.0000
0.03	-1.0144	0.0000	0.0000
0.04	-1.0144	0.0000	0.0000
0.05	-1.0144	0.0000	0.0000
0.06	-1.0144	0.0000	0.0000
0.07	-1.0144	0.0000	0.0000
0.08	-1.0144	0.0000	0.0000
0.09	-1.0144	0.0000	0.0000
0.10	-1.0144	0.0000	0.0000
0.11	-1.0144	0.0000	0.0000
0.12	-1.0144	0.0000	0.0000
0.13	-1.0144	0.0000	0.0000
0.14	-1.0144	0.0000	0.0000
0.15	-1.0144	0.0000	0.0000
0.16	-1.0144	0.0000	0.0000
0.17	-1.0144	0.0000	0.0000
0.18	-1.0144	0.0000	0.0000
0.19	-1.0144	0.0000	0.0000
0.20	-1.0144	0.0000	0.0000
0.21	-1.0144	0.0000	0.0000
0.22	-1.0144	0.0000	0.0000
0.23	-1.0144	0.0000	0.0000
0.24	-1.0144	0.0000	0.0000
0.25	-1.0144	0.0000	0.0000
0.26	-1.0144	0.0000	0.0000
0.27	-1.0144	0.0000	0.0000
0.28	-1.0144	0.0000	0.0000
0.29	-1.0144	0.0000	0.0000
0.30	-1.0144	0.0000	0.0000
0.31	-1.0144	0.0000	0.0000
0.32	-1.0144	0.0000	0.0000
0.33	-1.0144	0.0000	0.0000
0.34	-1.0144	0.0000	0.0000
0.35	-1.0144	0.0000	0.0000
0.36	-1.0144	0.0000	0.0000
0.37	-1.0144	0.0000	0.0000
0.38	-1.0144	0.0000	0.0000
0.39	-1.0144	0.0000	0.0000
0.40	-1.0144	0.0000	0.0000
0.41	-1.0144	0.0000	0.0000
0.42	-1.0144	0.0000	0.0000
0.43	-1.0144	0.0000	0.0000
0.44	-1.0144	0.0000	0.0000
0.45	-1.0144	0.0000	0.0000
0.46	-1.0144	0.0000	0.0000
0.47	-1.0144	0.0000	0.0000
0.48	-1.0144	0.0000	0.0000
0.49	-1.0144	0.0000	0.0000
0.50	-1.0144	0.0000	0.0000

ξ	Φ	Φ'	Φ''
0.50	-1.0144	0.0000	0.0000
0.51	-1.0144	0.0000	0.0000
0.52	-1.0144	0.0000	0.0000
0.53	-1.0144	0.0000	0.0000
0.54	-1.0144	0.0000	0.0000
0.55	-1.0144	0.0000	0.0000
0.56	-1.0144	0.0000	0.0000
0.57	-1.0144	0.0000	0.0000
0.58	-1.0144	0.0000	0.0000
0.59	-1.0144	0.0000	0.0000
0.60	-1.0144	0.0000	0.0000
0.61	-1.0144	0.0000	0.0000
0.62	-1.0144	0.0000	0.0000
0.63	-1.0144	0.0000	0.0000
0.64	-1.0144	0.0000	0.0000
0.65	-1.0144	0.0000	0.0000
0.66	-1.0144	0.0000	0.0000
0.67	-1.0144	0.0000	0.0000
0.68	-1.0144	0.0000	0.0000
0.69	-1.0144	0.0000	0.0000
0.70	-1.0144	0.0000	0.0000
0.71	-1.0144	0.0000	0.0000
0.72	-1.0144	0.0000	0.0000
0.73	-1.0144	0.0000	0.0000
0.74	-1.0144	0.0000	0.0000
0.75	-1.0144	0.0000	0.0000
0.76	-1.0144	0.0000	0.0000
0.77	-1.0144	0.0000	0.0001
0.78	-1.0144	0.0000	0.0002
0.79	-1.0144	0.0000	0.0004
0.80	-1.0144	0.0000	0.0010
0.81	-1.0144	0.0000	0.0022
0.82	-1.0144	0.0001	0.0048
0.83	-1.0144	0.0001	0.0107
0.84	-1.0144	0.0003	0.0239
0.85	-1.0144	0.0007	0.0534
0.86	-1.0144	0.0016	0.1191
0.87	-1.0144	0.0035	0.2658
0.88	-1.0143	0.0078	0.5931
0.89	-1.0142	0.0174	1.3233
0.90	-1.0140	0.0387	2.9519
0.91	-1.0134	0.0864	6.5829
0.92	-1.0123	0.1927	14.669
0.93	-1.0096	0.4292	32.635
0.94	-1.0037	0.9541	72.338
0.95	-0.9905	2.1110	159.0
0.96	-0.9614	4.6234	343.45
0.97	-0.8980	9.9075	713.37
0.98	-0.7633	20.299	1364.8
0.99	-0.4921	38.165	2208.5
1.00	0.0000	60.249	3052.1

$\lambda = 60.0$

$\Delta\Pi = 1.0232$

ξ	Φ	Φ'	Φ''
0.00	-1.0115	0.0000	0.0000
0.01	-1.0115	0.0000	0.0000
0.02	-1.0115	0.0000	0.0000
0.03	-1.0115	0.0000	0.0000
0.04	-1.0115	0.0000	0.0000
0.05	-1.0115	0.0000	0.0000
0.06	-1.0115	0.0000	0.0000
0.07	-1.0115	0.0000	0.0000
0.08	-1.0115	0.0000	0.0000
0.09	-1.0115	0.0000	0.0000
0.10	-1.0115	0.0000	0.0000
0.11	-1.0115	0.0000	0.0000
0.12	-1.0115	0.0000	0.0000
0.13	-1.0115	0.0000	0.0000
0.14	-1.0115	0.0000	0.0000
0.15	-1.0115	0.0000	0.0000
0.16	-1.0115	0.0000	0.0000
0.17	-1.0115	0.0000	0.0000
0.18	-1.0115	0.0000	0.0000
0.19	-1.0115	0.0000	0.0000
0.20	-1.0115	0.0000	0.0000
0.21	-1.0115	0.0000	0.0000
0.22	-1.0115	0.0000	0.0000
0.23	-1.0115	0.0000	0.0000
0.24	-1.0115	0.0000	0.0000
0.25	-1.0115	0.0000	0.0000
0.26	-1.0115	0.0000	0.0000
0.27	-1.0115	0.0000	0.0000
0.28	-1.0115	0.0000	0.0000
0.29	-1.0115	0.0000	0.0000
0.30	-1.0115	0.0000	0.0000
0.31	-1.0115	0.0000	0.0000
0.32	-1.0115	0.0000	0.0000
0.33	-1.0115	0.0000	0.0000
0.34	-1.0115	0.0000	0.0000
0.35	-1.0115	0.0000	0.0000
0.36	-1.0115	0.0000	0.0000
0.37	-1.0115	0.0000	0.0000
0.38	-1.0115	0.0000	0.0000
0.39	-1.0115	0.0000	0.0000
0.40	-1.0115	0.0000	0.0000
0.41	-1.0115	0.0000	0.0000
0.42	-1.0115	0.0000	0.0000
0.43	-1.0115	0.0000	0.0000
0.44	-1.0115	0.0000	0.0000
0.45	-1.0115	0.0000	0.0000
0.46	-1.0115	0.0000	0.0000
0.47	-1.0115	0.0000	0.0000
0.48	-1.0115	0.0000	0.0000
0.49	-1.0115	0.0000	0.0000
0.50	-1.0115	0.0000	0.0000

ξ	Φ	Φ'	Φ''
0.50	-1.0115	0.0000	0.0000
0.51	-1.0115	0.0000	0.0000
0.52	-1.0115	0.0000	0.0000
0.53	-1.0115	0.0000	0.0000
0.54	-1.0115	0.0000	0.0000
0.55	-1.0115	0.0000	0.0000
0.56	-1.0115	0.0000	0.0000
0.57	-1.0115	0.0000	0.0000
0.58	-1.0115	0.0000	0.0000
0.59	-1.0115	0.0000	0.0000
0.60	-1.0115	0.0000	0.0000
0.61	-1.0115	0.0000	0.0000
0.62	-1.0115	0.0000	0.0000
0.63	-1.0115	0.0000	0.0000
0.64	-1.0115	0.0000	0.0000
0.65	-1.0115	0.0000	0.0000
0.66	-1.0115	0.0000	0.0000
0.67	-1.0115	0.0000	0.0000
0.68	-1.0115	0.0000	0.0000
0.69	-1.0115	0.0000	0.0000
0.70	-1.0115	0.0000	0.0000
0.71	-1.0115	0.0000	0.0000
0.72	-1.0115	0.0000	0.0000
0.73	-1.0115	0.0000	0.0000
0.74	-1.0115	0.0000	0.0000
0.75	-1.0115	0.0000	0.0000
0.76	-1.0115	0.0000	0.0000
0.77	-1.0115	0.0000	0.0000
0.78	-1.0115	0.0000	0.0000
0.79	-1.0115	0.0000	0.0000
0.80	-1.0115	0.0000	0.0000
0.81	-1.0115	0.0000	0.0001
0.82	-1.0115	0.0000	0.0002
0.83	-1.0115	0.0000	0.0004
0.84	-1.0115	0.0000	0.0012
0.85	-1.0115	0.0000	0.0034
0.86	-1.0115	0.0001	0.0094
0.87	-1.0115	0.0003	0.0262
0.88	-1.0115	0.0008	0.0731
0.89	-1.0115	0.0022	0.2036
0.90	-1.0115	0.0060	0.5672
0.91	-1.0114	0.0167	1.5802
0.92	-1.0111	0.0467	4.4016
0.93	-1.0104	0.1299	12.252
0.94	-1.0085	0.3614	34.042
0.95	-1.0032	1.0021	94.098
0.96	-0.9885	2.7548	256.45
0.97	-0.9481	7.4011	672.81
0.98	-0.8405	18.775	1602.0
0.99	-0.5726	42.023	3047.6
1.00	0.0000	72.500	4493.2

$\lambda = 70.0$

$\Delta\Pi = 1.0188$

ξ	Φ	Φ'	Φ''
0.00	-1.0094	0.0000	0.0000
0.01	-1.0094	0.0000	0.0000
0.02	-1.0094	0.0000	0.0000
0.03	-1.0094	0.0000	0.0000
0.04	-1.0094	0.0000	0.0000
0.05	-1.0094	0.0000	0.0000
0.06	-1.0094	0.0000	0.0000
0.07	-1.0094	0.0000	0.0000
0.08	-1.0094	0.0000	0.0000
0.09	-1.0094	0.0000	0.0000
0.10	-1.0094	0.0000	0.0000
0.11	-1.0094	0.0000	0.0000
0.12	-1.0094	0.0000	0.0000
0.13	-1.0094	0.0000	0.0000
0.14	-1.0094	0.0000	0.0000
0.15	-1.0094	0.0000	0.0000
0.16	-1.0094	0.0000	0.0000
0.17	-1.0094	0.0000	0.0000
0.18	-1.0094	0.0000	0.0000
0.19	-1.0094	0.0000	0.0000
0.20	-1.0094	0.0000	0.0000
0.21	-1.0094	0.0000	0.0000
0.22	-1.0094	0.0000	0.0000
0.23	-1.0094	0.0000	0.0000
0.24	-1.0094	0.0000	0.0000
0.25	-1.0094	0.0000	0.0000
0.26	-1.0094	0.0000	0.0000
0.27	-1.0094	0.0000	0.0000
0.28	-1.0094	0.0000	0.0000
0.29	-1.0094	0.0000	0.0000
0.30	-1.0094	0.0000	0.0000
0.31	-1.0094	0.0000	0.0000
0.32	-1.0094	0.0000	0.0000
0.33	-1.0094	0.0000	0.0000
0.34	-1.0094	0.0000	0.0000
0.35	-1.0094	0.0000	0.0000
0.36	-1.0094	0.0000	0.0000
0.37	-1.0094	0.0000	0.0000
0.38	-1.0094	0.0000	0.0000
0.39	-1.0094	0.0000	0.0000
0.40	-1.0094	0.0000	0.0000
0.41	-1.0094	0.0000	0.0000
0.42	-1.0094	0.0000	0.0000
0.43	-1.0094	0.0000	0.0000
0.44	-1.0094	0.0000	0.0000
0.45	-1.0094	0.0000	0.0000
0.46	-1.0094	0.0000	0.0000
0.47	-1.0094	0.0000	0.0000
0.48	-1.0094	0.0000	0.0000
0.49	-1.0094	0.0000	0.0000
0.50	-1.0094	0.0000	0.0000

ξ	Φ	Φ'	Φ''
0.50	-1.0094	0.0000	0.0000
0.51	-1.0094	0.0000	0.0000
0.52	-1.0094	0.0000	0.0000
0.53	-1.0094	0.0000	0.0000
0.54	-1.0094	0.0000	0.0000
0.55	-1.0094	0.0000	0.0000
0.56	-1.0094	0.0000	0.0000
0.57	-1.0094	0.0000	0.0000
0.58	-1.0094	0.0000	0.0000
0.59	-1.0094	0.0000	0.0000
0.60	-1.0094	0.0000	0.0000
0.61	-1.0094	0.0000	0.0000
0.62	-1.0094	0.0000	0.0000
0.63	-1.0094	0.0000	0.0000
0.64	-1.0094	0.0000	0.0000
0.65	-1.0094	0.0000	0.0000
0.66	-1.0094	0.0000	0.0000
0.67	-1.0094	0.0000	0.0000
0.68	-1.0094	0.0000	0.0000
0.69	-1.0094	0.0000	0.0000
0.70	-1.0094	0.0000	0.0000
0.71	-1.0094	0.0000	0.0000
0.72	-1.0094	0.0000	0.0000
0.73	-1.0094	0.0000	0.0000
0.74	-1.0094	0.0000	0.0000
0.75	-1.0094	0.0000	0.0000
0.76	-1.0094	0.0000	0.0000
0.77	-1.0094	0.0000	0.0000
0.78	-1.0094	0.0000	0.0000
0.79	-1.0094	0.0000	0.0000
0.80	-1.0094	0.0000	0.0000
0.81	-1.0094	0.0000	0.0000
0.82	-1.0094	0.0000	0.0000
0.83	-1.0094	0.0000	0.0000
0.84	-1.0094	0.0000	0.0000
0.85	-1.0094	0.0000	0.0001
0.86	-1.0094	0.0000	0.0003
0.87	-1.0094	0.0000	0.0013
0.88	-1.0094	0.0000	0.0047
0.89	-1.0094	0.0002	0.0175
0.90	-1.0094	0.0006	0.0644
0.91	-1.0093	0.0021	0.2374
0.92	-1.0093	0.0076	0.8750
0.93	-1.0092	0.0281	3.2241
0.94	-1.0087	0.1036	11.871
0.95	-1.0071	0.3809	43.589
0.96	-1.0011	1.3911	158.45
0.97	-0.9793	4.9627	555.86
0.98	-0.9019	16.429	1737.3
0.99	-0.6507	45.094	3995.7
1.00	0.0000	85.051	6254.1

$\lambda = 80.0$

$\Delta\Pi = 1.0154$

ξ	Φ	Φ'	Φ''
0.00	-1.0077	0.0000	0.0000
0.01	-1.0077	0.0000	0.0000
0.02	-1.0077	0.0000	0.0000
0.03	-1.0077	0.0000	0.0000
0.04	-1.0077	0.0000	0.0000
0.05	-1.0077	0.0000	0.0000
0.06	-1.0077	0.0000	0.0000
0.07	-1.0077	0.0000	0.0000
0.08	-1.0077	0.0000	0.0000
0.09	-1.0077	0.0000	0.0000
0.10	-1.0077	0.0000	0.0000
0.11	-1.0077	0.0000	0.0000
0.12	-1.0077	0.0000	0.0000
0.13	-1.0077	0.0000	0.0000
0.14	-1.0077	0.0000	0.0000
0.15	-1.0077	0.0000	0.0000
0.16	-1.0077	0.0000	0.0000
0.17	-1.0077	0.0000	0.0000
0.18	-1 0077	0.0000	0.0000
0.19	-1.0077	0.0000	0.0000
0.20	-1.0077	0.0000	0.0000
0.21	-1.0077	0.0000	0.0000
0.22	-1.0077	0.0000	0.0000
0.23	-1.0077	0.0000	0.0000
0.24	-1.0077	0.0000	0.0000
0.25	-1.0077	0.0000	0.0000
0.26	-1.0077	0.0000	0.0000
0.27	-1.0077	0.0000	0.0000
0.28	-1.0077	0.0000	0.0000
0.29	-1.0077	0.0000	0.0000
0.30	-1.0077	0.0000	0.0000
0.31	-1.0077	0.0000	0.0000
0.32	-1.0077	0.0000	0.0000
0.33	-1.0077	0.0000	0.0000
0.34	-1.0077	0.0000	0.0000
0.35	-1.0077	0.0000	0.0000
0.36	-1.0077	0.0000	0.0000
0.37	-1.0077	0.0000	0.0000
0.38	-1.0077	0.0000	0.0000
0.39	-1.0077	0.0000	0.0000
0.40	-1.0077	0.0000	0.0000
0.41	-1.0077	0.0000	0.0000
0.42	-1.0077	0.0000	0.0000
0.43	-1.0077	0.0000	0.0000
0.44	-1.0077	0.0000	0.0000
0.45	-1.0077	0.0000	0.0000
0.46	-1.0077	0.0000	0.0000
0.47	-1.0077	0.0000	0.0000
0.48	-1.0077	0.0000	0.0000
0.49	-1.0077	0.0000	0.0000
0.50	-1.0077	0.0000	0.0000

ξ	Φ	Φ'	Φ''
0.50	-1.0077	0.0000	0.0000
0.51	-1.0077	0.0000	0.0000
0.52	-1.0077	0.0000	0.0000
0.53	-1.0077	0.0000	0.0000
0.54	-1.0077	0.0000	0.0000
0.55	-1.0077	0.0000	0.0000
0.56	-1.0077	0.0000	0.0000
0.57	-1.0077	0.0000	0.0000
0.58	-1.0077	0.0000	0.0000
0.59	-1.0077	0.0000	0.0000
0.60	-1.0077	0.0000	0.0000
0.61	-1.0077	0.0000	0.0000
0.62	-1.0077	0.0000	0.0000
0.63	-1.0077	0.0000	0.0000
0.64	-1.0077	0.0000	0.0000
0.65	-1.0077	0.0000	0.0000
0.66	-1.0077	0.0000	0.0000
0.67	-1.0077	0.0000	0.0000
0.68	-1.0077	0.0000	0.0000
0.69	-1.0077	0.0000	0.0000
0.70	-1.0077	0.0000	0.0000
0.71	-1.0077	0.0000	0.0000
0.72	-1.0077	0.0000	0.0000
0.73	-1.0077	0.0000	0.0000
0.74	-1.0077	0.0000	0.0000
0.75	-1.0077	0.0000	0.0000
0.76	-1.0077	0.0000	0.0000
0.77	-1.0077	0.0000	0.0000
0.78	-1.0077	0.0000	0.0000
0.79	-1.0077	0.0000	0.0000
0.80	-1.0077	0.0000	0.0000
0.81	-1.0077	0.0000	0.0000
0.82	-1.0077	0.0000	0.0000
0.83	-1.0077	0.0000	0.0000
0.84	-1.0077	0.0000	0.0000
0.85	-1.0077	0.0000	0.0000
0.86	-1.0077	0.0000	0.0000
0.87	-1.0077	0.0000	0.0000
0.88	-1.0077	0.0000	0.0001
0.89	-1.0077	0.0000	0.0005
0.90	-1.0077	0.0000	0.0028
0.91	-1.0077	0.0001	0.0154
0.92	-1.0076	0.0006	0.0841
0.93	-1.0076	0.0033	0.4580
0.94	-1.0076	0.0181	2.4950
0.95	-1.0073	0.0984	13.576
0.96	-1.0056	0.5334	73.417
0.97	-0.9966	2.8233	384.56
0.98	-0.9491	13.460	1742.7
0.99	-0.7274	47.457	5056.9
1.00	0.0000	98.026	8371.1